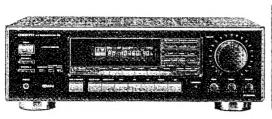
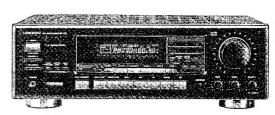
Ref. No. 3469

ONKYO SERVICE MANUAL

QUARTZ SYNTHESIZED TUNER AMPLIFIER MODEL TX-9022RDS MODEL TX-SV9030









SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.



TABLE OF CONTENTS

Specifications	2
Service procedures	3
Exploded view TX-SV9030	4
Parts list TX-SV9030	5
Exploded view TX-9022RDS	6
Parts list TX-9022RDS	7
Block diagram Tuner section	8
Block diagram TX-SV9030	10
Block diagram TX-9022RDS	11
Microprocessor connection diagram	12
Microprocessor terminal description	. 13
IC block diagrams and descriptions	14
Adjustment procedures	20
Printed circuit board views from bottom side	23
Schematic diagram TX-9022RDS	25
Schematic diagram TX-SV9030	29
Printed circuit board views from bottom side	33
Schematic diagram TX-SV9030	37
Printed circuit board-parts list TX-9022RDS	39
Printed circuit board-parts list TX-SV9030	43
Packing view	48



SPECIFICATIONS

AMPLIFIER SECTION

Power Output:

TX-9022RDS USA & Canadian models:

100 watts per channel, min. RMS, at 8 ohms, both channels driven, from 40 Hz to 20 kHz with no more than

2.5 mV/50 kohms

150 mV/50 kohms

150 mV/2.2 kohms

0.2% THD.

Other than USA & Canadian models:

Continuous output

2 × 100 watts at 4 ohms 1 kHz (DIN) 2 × 75 watts at 8 ohms 1 kHz (DIN)

Total Harmonic Distortion:

IM Distortion:

Phono Overload:

Damping Factor:

Sensitivity and Impedance:

Phono:

CD/Tape Play: Tape Rec:

87.5 - 108.0 MHz

50 at 8 ohms

0.08% at power 30 watts

0.08% at power 30 watts

120 mV RMS. at 1,000 Hz, 0.5% THD. 20 to 30,000 Hz, +/-1 dB

Frequency Response: RIAA Deviation: Tone Control:

20 to 20,000 Hz, +/-0.8 dB BASS: TREBLE: PHONO:

+/-10 dB at 100 Hz +/-10 dB at 10,000 Hz 80 dB (IHF A, 5 mV input)

Signal to Noise Ratio:

CD/TAPE:

1.5 dB

Stereo: 67 dB

50 dB (DIN)

Mono: 0.15% Stereo: 0.25%

European models:

30 - 15,000 Hz +/-1.5 dB

45 dB at 1 kHz/30 dB at 100 - 10,000 Hz

USA & Canadian models: 530 - 1710 kHz (10 kHz steps)

AC 230V, 50 Hz

522 - 1611 kHz (9kHz steps) 531 — 1602 kHz (9 kHz steps),

530 - 1710 kHz (10 kHz steps)

50 dB

100 dB (IHF A)

VIDEO SECTION

Signal sensitivity and impedance:

VDP/VCR input, output: 1 Vp-p, 75 ohms

TUNER SECTION FM:

Tuning Range:

Usable Sensitivity:

Mono: 11.2 dBf, 1.0 μV (75 ohms) Stereo: 17.2 dBf, 2.0 μV (75 ohms) Mono: 18.2 dBf, 2.2 μV (75 ohms) Stereo: 38.2 dBf, 22 μV (75 ohms) 50dB Quieting Sensitivity:

Capture Ratio:

Image Rejection Ratio:

USA & Canadian models: 40 dB Other area models: IF Rejection Ratio: 90 dB Mono: 73 dB

Signal-to-Noise Ratio:

Alternate Channel Attenuation: 55 dB

Selectivity: AM Suppression Ratio:

Total Harmonic Distortion:

Frequency Response:

Stereo Separation:

Tuning Range:

Worldwide models Usable Sensitivity: 30 μV Image Rejection Ratio: 40 dB

IF Rejection Ratio: Signal-to-Noise Ratio: Total Harmonic Distortion:

GENERAL

Weight:

Power Supply:

Dimensions $(W \times H \times D)$:

17-15/16" × 5-7/8" × 13-1/16"

40 dB

40 dB

9.5 kg (20.9 lbs)

European models:

455 × 150 × 331 mm

TX-SV9030

Stereo mode

Front L/R channels

60 watts per channel min. RMS. at 8 ohms, both channels driven, from 20 Hz to 20,000 Hz, with no more than 0.08% total harmonic distortion.

Continuous Power output:

 2×90 watts 4 ohms 1 kHz (DIN) 2×70 watts 8 ohms 1 kHz (DIN)

Surround mode

Front L/R and center channels

50 watts per channel min. RMS at 8 ohms, with no more than 0.08% total harmonic distortion at 1,000 Hz

Rear channels

15 watts per channel min. RMS at 8 ohms with no more than 0.3% total harmonic distortion at 1,000 Hz

0.08% at rated power (FRONT) 0.08% at rated power (FRONT) 50 at 8 ohms (FRONT)

Phono: CD/Tape Play: Tape Rec:

2.5 mV/50 kohms 150 mV/50 kohms 150 mV/2.2 kohms Mono out (SUBWOOFER): 1V 2.2 kohms

120 mV RMS. at 1,000 Hz, 0.5% THD. 20 to 30,000 Hz, +/-1 dB 20 to 20,000 Hz, +/-0.8 dB BASS: +/-10 dB at 100 Hz

TREBLE: +/-10 dB at 10,000 Hz PHONO: 80 dB (IHF A, 5 mV input) CD/TAPE: 100 dB (IHF A)

VDP/VCR input, output: 1 Vp-p, 75 ohms

87.5 - 108.0 MHz

Mono: 11.2 dBf, 1.0 μV (75 ohms) Stereo: 17.2 dBf, 2.0 µV (75 ohms) Mono: 18.2 dBf, 2.2 μV (75 ohms) Stereo: 38.2 dBf, 22 μV (75 ohms) 1.5 dB

USA & Canadian models: 40dB Other area models: 85 dB

90 dBMono: 73 dB Stereo: 67 dB 55 dB 50 dB (DIN) 50 dB Mono: 0.15% Stereo: 0.25%

30 — 15,000 Hz +/-1.5 dB

45 dB at 1 kHz/30 dB at 100 - 10,000 Hz

USA & Canadian models: 530 - 1710 kHz (10 kHz steps) 522 — 1611 kHz (9kHz steps) 531 — 1602 kHz (9 kHz steps), European models: Worldwide models

530 — 1710 kHz (10 kHz steps)

 $30 \,\mu V$ 40 dB 40 dB

40 dB 0.7%

European models: 455 × 150 × 331 mm

AC 230V, 50 Hz 17-15/16" × 5-7/8" × 13-1/16"

10.2 kg (22.5 lbs)



Remote control transmitter RC-223S

Transmitter:

Signal range: Power supply: Infrared

Approx. 5 meters (16ft. \times 4") Two "AA" batteries (1.5V \times 2)

Specifications and features are subject to change without notice.

SERVICE PROCEDURES

1.Replacing the fuses

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce darnier est indique la qu le present symbol est appose.

Circuit No.	Part No.	Descriptions	Remarks
F902	252076	3.15A-SE-EAK, Primary	
F903	252075	2.5A-SE-EAK,AC outlet	
F921,F922	252079	6.3A-SE-EAK, SEcondary	TX-SV9030 only

2. Changing the band step

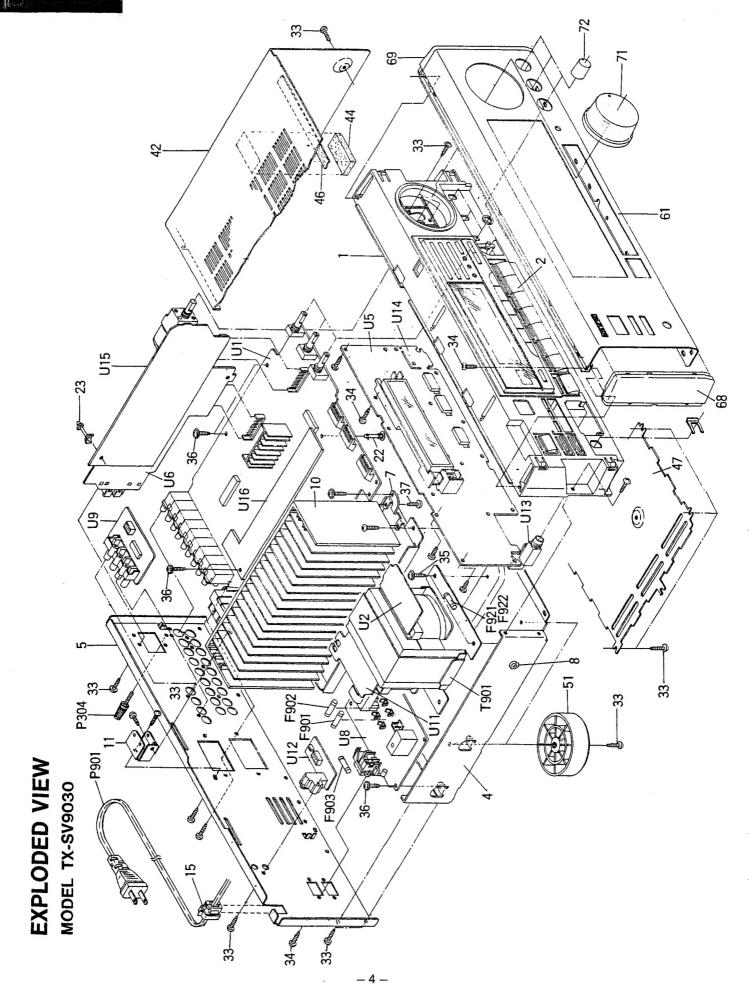
With the exception of the models below, a BAND STEP selector switch is not provided.

<AM>

MODEL	BAND STEP	R727
MD	10kHz to 9kHz	47 kΩ
MP	9kHz to 10kHz	22 kΩ

3.Memroy preservation

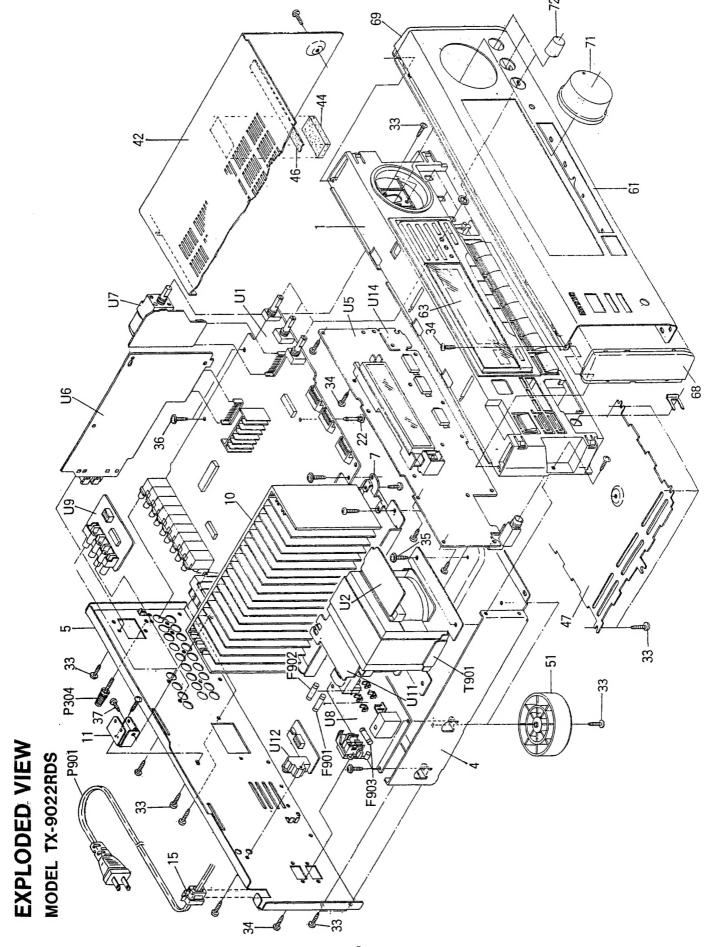
This unit does not require memory preservation batteries. A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month to keep the back-up system operative. The period of time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorter when the unit is exposed to very high humidity or used in an area with an extremely humid climate.



PARTS LIST

DESCRIPTION 2SA1695-0, 2SA1695-Y, 2SA1265N-R or 2SA1265N-R or	2SC4467-0, 2SC4467-Y, 2SC3181N-R or 2SC3181N-C).Transistors 2SC3466-0, 2SC3466-Y, 2SC3466-P,	25C3180N-R or 25C3180N-O,Transistors 25A1694-O, 25A1694-Y, 25A1264N-R or 25A1264N-O,Transistors	2SA1693-0, 2SA1693-Y, 2SA1693-Y, 2SA1263N-R or 2SA1263N-O,Transistors AY NAR-4892-1A,Main circuit pc board ass'y NAR-4892-1A,Main circuit pc board ass'y NAR-4899-1A,Tuner circuit pc board ass'y NAR-4899-1A,Tuner circuit pc board ass'y NAR-4899-1,N'ideo circuit pc board ass'y NAETC-4901-1,V'ideo circuit pc board ass'y NAETC-4901-1,V'ideo circuit pc board ass'y NAETC-4903-1,Primary circuit pc board ass'y NAETC-4903-1,R'i terminal pc board ass'y NAETC-4908-1,R'i terminal pc board ass'y NAETC-4908-1,R'i terminal pc board ass'y NAETC-4908-1,C'i terminal pc board ass'y NAF-4908-1,C'i terminal pc board ass'y NAF-4909-1A,C'enter and rear amplifier pc board ass'y RECRIR ELECTRI
PART NO. 2202513, 2202514, 2202516, 2202282 or 2202783	2202253, 2202254, 2202256, 2202502 or 2202503 2202373, 2202374, 2202375,	2202353 or 2202353 2202244, 2202246, 2202492 or 2202493	2202363, 2202364, 2202365, 2202343 2300984Y 1A472592-1AY 1A472593-1AY 1A472591-1X 1A472501-1Y 1A47250-1Y 1A47250-1Y 1A47250-1Y 1A47250-1Y
REF.NO. Q523,Q524	Q821 Q822	Q823	Q824 T901 U1 U2 U5 U6 U8 U9 U11 U12 U13 U14 U15
DESCRIPTION Front bracket Knob CLA Isolating plate Chassis Rear nanet	Bracket H Spacer Radiator Retainer H Retainer HS-2 Bushing cord KGLS-14RF,Holder	3SMS8W.SW+14B(BC),Special screw 3TTS+8B(BC),Self-tapping screw 3TTP+8P(BC),Self-tapping screw 4TTC+8B(BC),Self-tapping screw 3TTW+8B,Self-tapping screw 3TTS+10B(BC),Self-tapping screw 3P+6FN(BC),Pan head screw	Top cover Cushion Cushion Bottom panel Leg Front panel ass'y CS-3.Ring CS Clear plate Facet Badge End cap L End cap R Knob VOLUME Knob LEVEL A.5.4-SE-EAK,Fuse A.5.4-SE-EAK,Fuse C.5.4-SE-EAK,Fuse AS-CEE,Power supply cord 2.5C4468-Y, 2.5C4468-Y, 2.5C3182N-Q. Transistors
PART NO. 27110794Y 28324929AY 28175209Y 27100278AY	27130727Y 27270212Y 27160330AY 27141633Y 27141530AY 27300750 27190524 27190622	801433 834430088 833430080 830440089 831130088 834430108	28184476BY 28140265 28140546 27170302Y 27175251AY 1A473121Y 8910301 28191673Y 28191673Y 28135256A 28125256A 28125256A 28324933A 28324931A 28324931A 252075 252076 252076 252076 252076 252079 2520253 2520253, 2520253, 2520253, 25022292 or 25022293
REF. NO. 1 2 3 4 4 5	7 8 8 10 11 11 13 15 22 23	32 33 34 35 37 39	42 44 46 47 51 61 62 63 64 67 67 71 72 72 72 73 73 73 73 73 73 73 73 73 73 73 73 73

NOTE: THE COMPONENTS IDENTIFIED BY MARK AARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.



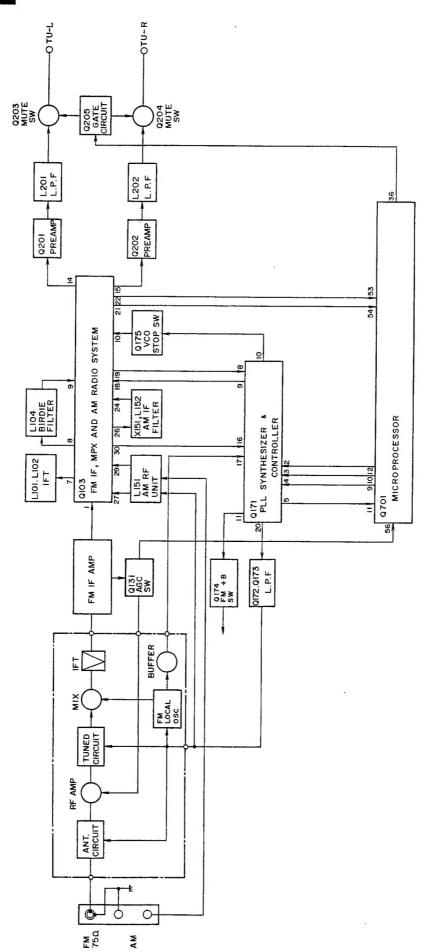
PARTS LIST

DESCRIPTION Terminal A S-CEE-2.		2SC3856-U, 2SC3856-Y or	2SC3856-P,Transistors	2SA1492-0,	2SA1492-Y or	2SA1492-P, Transistors	NPT-1194P,Power transformer	NAAR-4892-3A, Main circuit pc board ass'y	NAETC-4893-3A, Power supply circuit pc board ass'y	NADIS-4897-3C, Display circuit pc board ass'y	NARF-4898-3C, Tuner circuit pc board ass'y	NAAF-4899-3, Volume circuit pc board ass'y	NAPS-4900-3A, Power supply circuit pc board ass'y	NAETC-4901-3, Video circuit pc board ass'y	NAETC-4903-3, Primary circuit pc board ass'y	NAETC-4904-3B,RI terminal pc board ass'y	NAETC-4905-3, Headphone terminal pc board ass'y	NASW-4906-3, Loudness switch pc board ass'y												
<							⊲	ΑY	ΑY	ζĶ	C.Y.	¥	Α¥	×	٠	ΒY	×	بر												
PART NO. 25060044 253172 or	253092-1A	2201653, 2201654 or	2201655	2201663,	2201664 or	2201665	2300976Y	1A468592-3AY	1A468593-3AY	1A476597-3CY	1A476598-3CY	1A468599-3Y	1A468500-3AY	1A468501-3Y	1A468503-3Y	1A468504-3BY	1A468505-3Y	1A468506-3Y												
REF.NO. P304 P901	0671 0677	7750'1750		Q523,Q524			T901	UI	U2	US	90	10	U8	U9	UII	U12	UI3	U14												
DESCRIPTION Front bracket Knob CLA	Isolating plate	Cirassis Rear panel	Bracket H	Spacer	Radiator	Retainer H	Bushing cord	KGLS-14RF,Holder	3SMS8W.SW+14B(BC),Special screw	3TTS+8B(BC),Self-tapping screw	3TTP+8P(BC), Self-tapping screw	4TTC+8B(BC), Self-tapping screw	3TTW+8B,Self-tapping screw	3TTS+10B(BC), Self-tapping screw	Top cover	Cushion	Cushion	Bottom panel	Leg	Front panel ass'y	CS-3,Ring CS	Clear plate	Facet	Badge	End cap L	End cap R	Knob VOLUME	Knob LEVEL	3.15A-SE-EAK,Fuse	△ 2.5A-SE-EAK,Fuse
PART NO. 27110795Y 28324929Y	28175209Y	27121839AY	27130727Y	27270212Y	27160330AY	27141623Y	27300750	27190524	801433	834430088	833430080	830440089	831130088	834430108	28184476BY	28140265	28140546	27170302Y	27J75251AY	1A477121Y	8910301	28191673Y	28198782Y	28135199	28125255A	28125256A	28324932B	28324845B	252076	252075
REF. NO. 1	ю 4	t v	7	∞	10	11	15	22	32	33	34	35	36	37	42	4	46	47	51	19	62	63	2	19	89	69	71	72	F902	F903

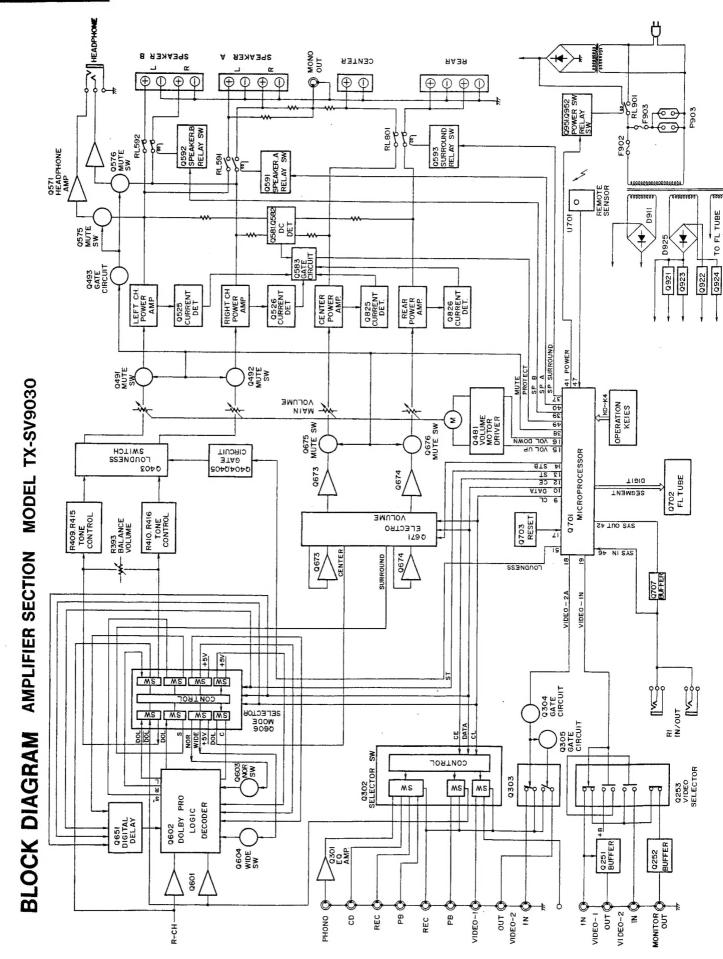
NOTE: THE COMPONENTS IDENTIFIED BY MARK AARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

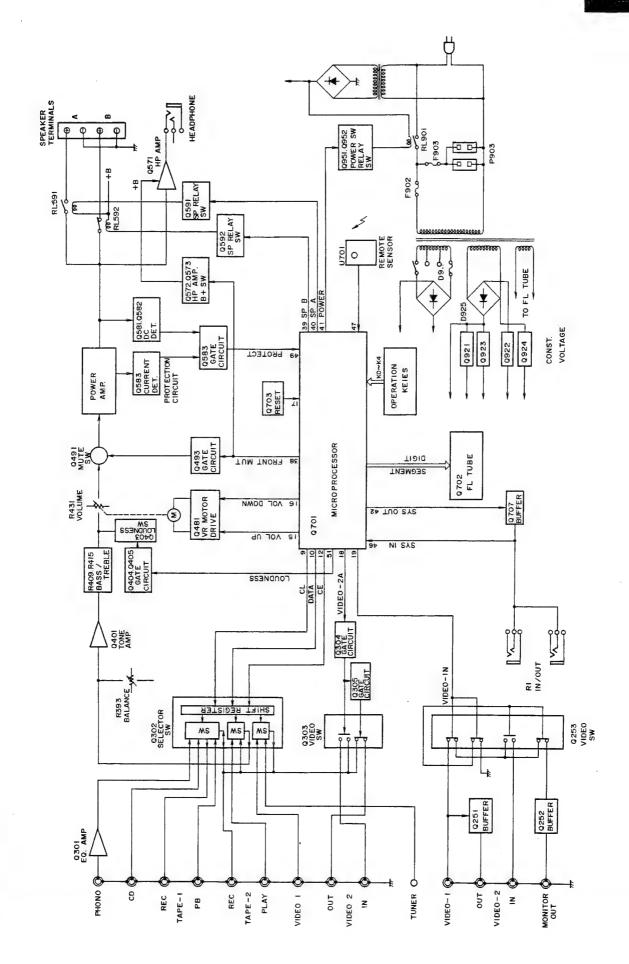


BLOCK DIAGRAM TUNER SECTION TX-SV9030



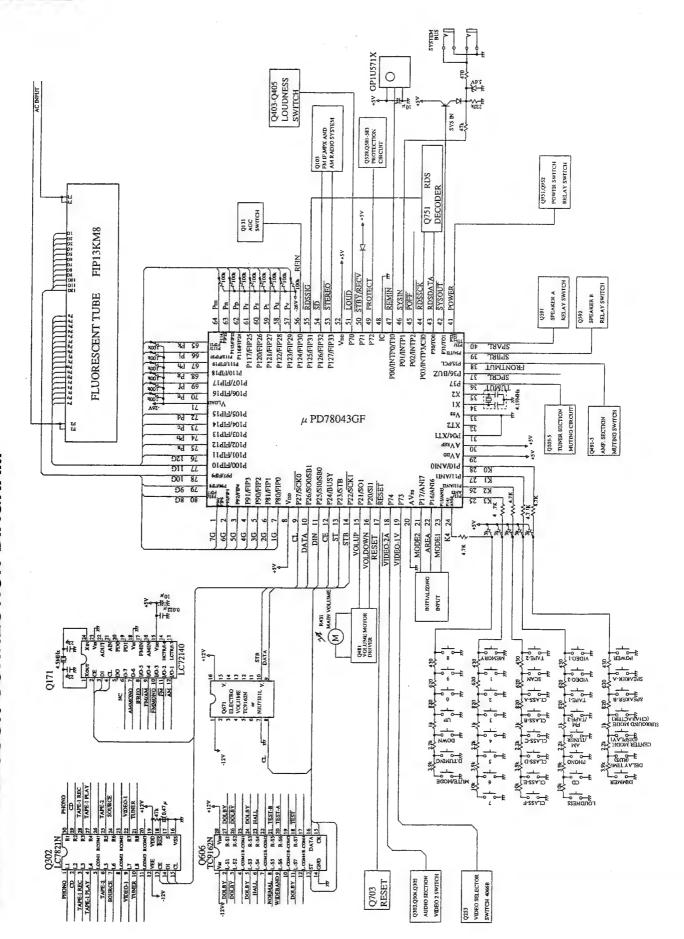
TX-9022RDS







MICROPROCESSOR CONNECTION DIAGRAM





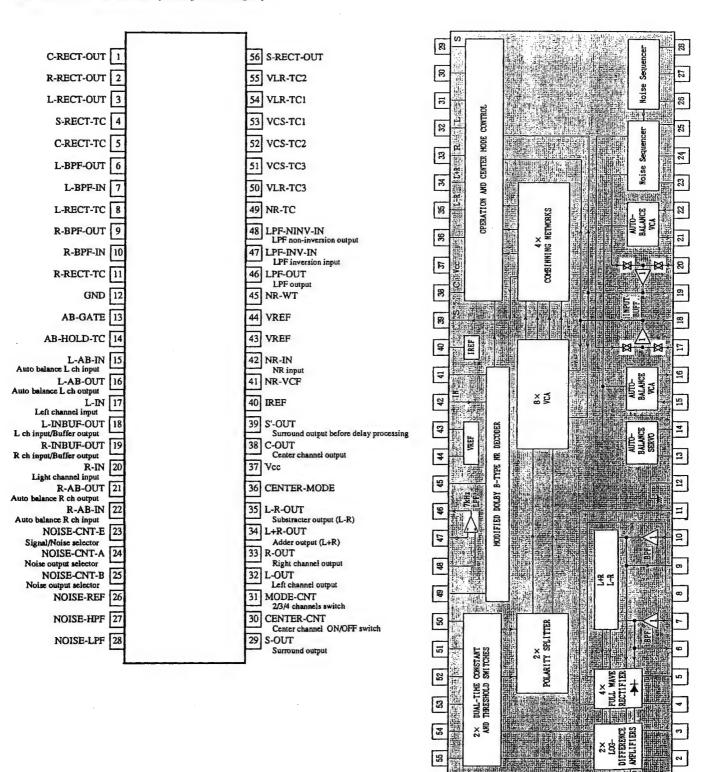
TERMINAL DESCRIPTION

Pin No.	. Function	Description	Pin No.	Pin No. Function	Description
1~1	7G~1G	Grid output terminals Active"H"	40	SPARL	Control output terminal for speaker relay A
∞	VDD	Positive power supply terminal (+5V)	41	POWER	Power source control output terminal
6	당	Output terminal for CL-terninal of LC7821N, CK-terminal of TC9162N,	42	SYSOUT	System code output terminal
		CL-terminal of LC72140, CK-terminal of TC9213P and SCK-terminal of M65830P	43	RDSDATA	Input terminal for DATA OUT-terminal of μ PC1346CS
10	DATA	Output terminal for DI-terminal of LC7821N, DATA-terminal of TC9162N,	44	RDSSCK	Input terminal for SCK-terminal of μ PC1346CS
		DI-terminal of LC72140, DATA-terminal of TC9213P and DATA-terminal of M65830P	45	POFF	Detection input terminal for power failure
=	DIN	Input terminal for DO-terminal of LC72140	46	SYSIN	System code input terminal
12	CE	Output terminal for CE-terninal of LC7821N and LC72140	47	REMIN	Input terminal for signal of remote control
13	STB	Output terminal for ST-terminal of TC9162N, STB-terminal of TC9213P	48	IC	Internal connection terminal
		and REQ-terminal of M65830P.	49	PROTECT	Detection input terminal for movement of protection circuit
14	RDSSCK	Input terminal for CLK OUT-terminal of RDS decoder µ PC1346CS	20	STBY/RECV	STBY/RECV STAND-BY and RECEIVED indication output terminal
15	VOLUP	Volume control output terminal	51	LOUD	Control output terminal for Loudness switch
16	VOLDOWN	Refer to table 1	52	VDD	Positive power supply terminal (+5V)
17	RESET	Input terminal for System Reset	53	STEREO	Detection input terminal for stereo broadcasting
18	VIDEO-2A	Output terminal for changing Audio Signal of VIDEO-2	54	SD	Detection input terminal for radio station
19	VIDEO-1V	Output terminal for changing Visual Signal of VIDEO-1	55	RDSSIG	Detection input terminal for RDS broadcasting
20	AVSS	Grand terminal for A/D converter	56	RFIN	RF MODE input terminal
21	MODE2	Initial setting Input terminal for changing AM sterco function	57~70	Pv~Pe	Segment output terminals Active"H"
22	AREA	Initial setting(BAND0,BAND1,AM10K) input terminal for changing frequency range	711	VLOAD	ior
23	MODE	Initial setting input terminal for surround function	72~75	Pd~Pa	Segment output terminals Active"H"
24	K4	Key input terminal,	76~80	76~80 12G~8G	ijo
25	K3	Key input terminal,			1
26	К2	Key input terminal.			Outputs
27	К1	Key input terminal.		Мочетеп	VOLUP(#15) VOLDOWN(#16)
28	К0	Key input terminal,		Stop	
29	AVDD	Analog positive power terminal (+5V) for A/D converter		UP	
30	AVREF	Reference voltage input terminal for A/D converter		DOWN	
31	XT1	Crystal connection terminal for resonator of sub system clock		POWER OFF	
32	XT2	Not used,			
33	VSS	Ground Terminal		Table 1	
34	X1	Connect the ceramic resonator 4.19MHz.			
35	X2	Resonator connection terminal for resonstor of main system clock			
36	TUMUT	Muting output terminal for tuner			
Т	SURMUT	Muting output terminal for center and rear amplifiers			
38	FRONTMUT	Muting output terminal for front amplifier			
39	SPBRL	Control output terminal for speaker relay B			



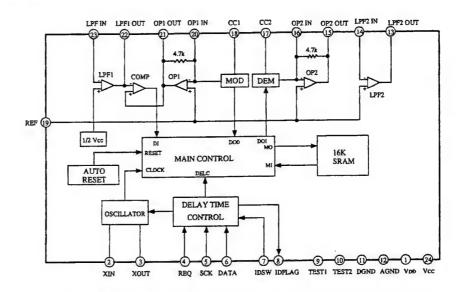
IC BLOCK DIAGRAMS AND DESCRIPTIONS

NJM2177L/M69032P (Dolby Pro Logic)





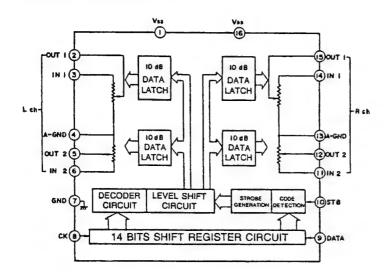
M65830P (Digitai Delay)

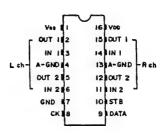


Pin No.	Mark	Function	1/0	Description
1	VDD	Digital power supply		
2	XIN	Resonator input	1	Connect the 2MHz ceramic resonator
3	XOUT	Resonator output	0	
4	REQ	Request	1	Data request input
5	SCK	Shift lock	1	Serial data shift clock input
6	DATA	Data	1	Serial data input
7	IDSW	ID switch	1	External input of 4th bit of ID code
8	IDFLAG	ID flag	0	Data input confirmation pulse and serial data output
9	TEST1	Test 1	·	Normal mode when low level
10	TEST2	Test 2	·	Normal mode when low level
11	D GND	Digital ground	-	
12	A GND	Analog ground	<u> </u>	
13	LPF2 OUT	LPF filter 2 output	0	
14	LPF2 IN	LPF filter 2 input	1	
15	OP2 OUT	Operation amp. 2 output	0	
16	OP2 IN	Operation amp. 2 input	1	
17	CC2	Current control 2		Demodulation ADM control
18	CC1	Current control 1	-	Modulation ADM control
19	REF	Reference	·	Analog reference voltage=1/2VCC
20	OP1 IN	Operation amp. 1 input	1	
21	OPI OUT	Operation amp. 1 output	0	
22	LPF1 OUT	LPF filter 1 output	0	
23	LPF1 IN	LPF filter 1 input	1	
24	vcc	Analog power supply	-	

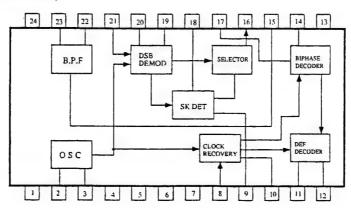


TC9213P (Eiectro Volume)



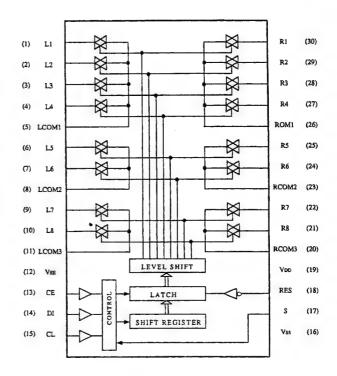


μPD1346CS (RDS Decoder)



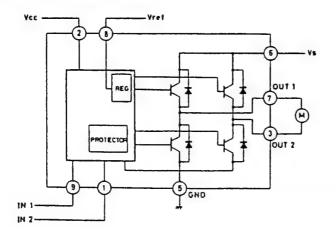
No.	Terminal	Description	No.	Terminal	Description
1	Vcc	Supply voltage for the digital circuit	13	GND	Ground for the analog circuit
2	OSC IN	Resonator input	14	INTEG	Integrating filter terminal
3	OSC OUT	Resonator output	15	BPF ADJ	Adjustment fc of band pass filter
4	GND	Ground for the digital circuit	16	PSK OUT	Biphase signal output
5	TEST1	Test input	17	PSK IN	Biphase decoder input
-6	TEST2	Test input	18	LPF SK	Low pass filter for the detection SK
7	OP.CTL	Control input of the operation stop	19	LPF Q	Low pass filter for the crossed detector
8	S/L CTL	Mode control input of the synchonizing detection	20	LPF I	Low pass filter for the synchronizing detector
9	SK OUT	SK detection output	21	DSB IN	DSB demodulator circuit input
10	RDS OUT	RDS synchonizing detection output	22	BPF OUT	Band pass filter output
11	CLOCK OUT	Bit rate clock output	23	BPF IN	Band pass filter input
12	DATA OUT	RDS data output	24	Vcc	Supply voltage for analog circuit

LC7821N (Analogue switch)



Pin No.	Terminal	Description	Pin No.	Terminal	Description
1	PHONO		16	Vss	Ground terminal.
2	CD		17	S	Selector terminal
3	TAPE I REC		18	RES	Reset terminal.
4	TAPE 1 PB	Input/output terminals of audio signal	19	VDD	Power supply terminal.(+15V)
5	L COM 1	of left channel.	20	R COM 3	
6	MONITOR	Control to the inside analogue switch	21	TUNER	
7	SOURCE	at the serial data,	22	VIDEO 1	
8	L COM 2		23	R COM 2	Input/output terminals of audio signal
9	VIDEO 1		24	SOURCE	of right channel.
10	TUNER		25	MONITOR	Control to the inside analogue switch
11	L COM 3		26	R COM 1	at the serial data.
12	Vss	Negative power supply terminal.	27	TAPE 1 PB	
		(-15V)	28	TAPE 1 REC	
13	CE	Chip enable terminal.Connect the terminal SEL of microprocessor.	29	CD	
14	DI	Serial data input terminal. Connect the terminal DATA of microprocessor.	30	PHONO	J
15	CL	Serial clock input terminal Connect the terminal CL of microprocessor			

TA7291S (Volume driver)



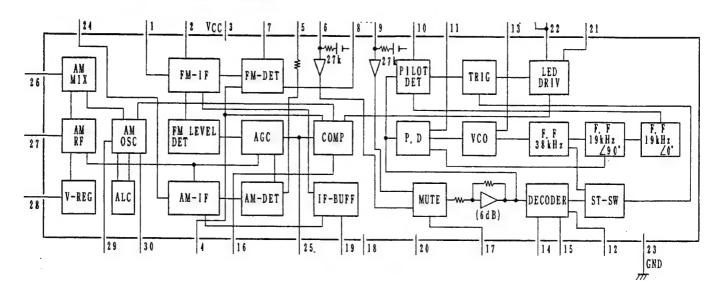
INP	υT	OUT	PUT				
INI	IN 2	OUTI	OUT 2	MODE			
0	0	GC.	000	STOP			
1	0	н	L	CW/CCW			
0	١	l	н	CCW/CW			
1	1	L	L	BRAKE			

CCW: Counter clockwise direction

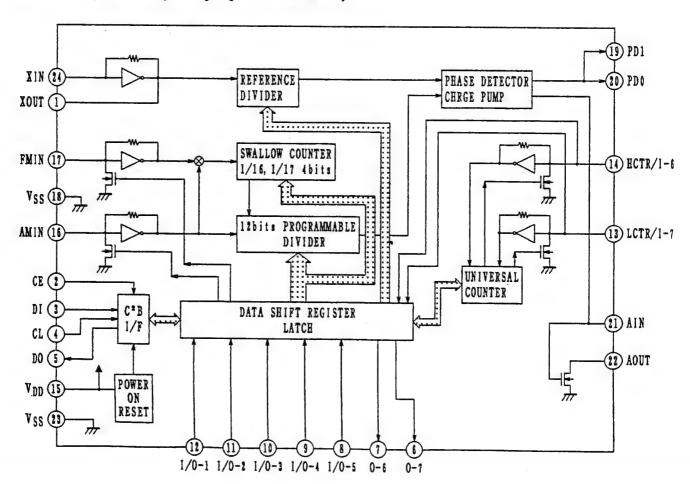
CW: Clockwise direction



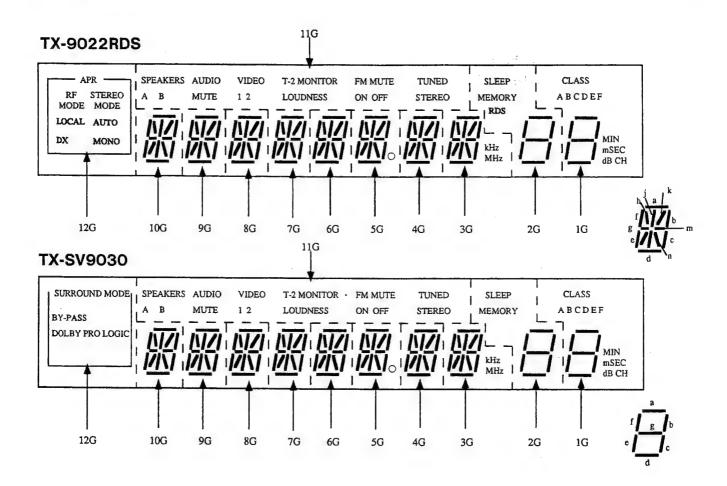
LA1851N (AM, FM IF and MPX)



LC72140 (PLL Frequency Synthesized LSI)



FL TUBE



1	2	3	4	5	6	7	8	9	10	11	12
F1	F1	NP	NP	NP	Pv	Pu	Pt	Ps	Pr	Pp	Pn
13	14	15	16	17	18	19	20	21	22	23	24
Pm	Pk	Pj	Ph	Pg	Pf	Pe	Pd	Pc	Pb	Pa	NP
25	26	27	28	29	30	31	32	33	34	35	36
NP	NP	NP	12G	11 G	10G	9G	8G	7G	6G	5G	4G
37	38	39	40	41	42	43	44	45	46		
3G	2G	1G	NP	NP	NP	NP	NP	F2	F2		
	13 Pm 25 NP 37	F1 F1 13 14 Pm Pk 25 26 NP NP 37 38	F1 F1 NP 13 14 15 Pm Pk Pj 25 26 27 NP NP NP 37 38 39	F1 F1 NP NP 13 14 15 16 Pm Pk Pj Ph 25 26 27 28 NP NP NP 12G 37 38 39 40	F1 F1 NP NP NP 13 14 15 16 17 Pm Pk Pj Ph Pg 25 26 27 28 29 NP NP NP 12G 11G 37 38 39 40 41	F1 F1 NP NP NP Pv 13 14 15 16 17 18 Pm Pk Pj Ph Pg Pf 25 26 27 28 29 30 NP NP NP 12G 11G 10G 37 38 39 40 41 42	F1 F1 NP NP NP Pv Pu 13 14 15 16 17 18 19 Pm Pk Pj Ph Pg Pf Pe 25 26 27 28 29 30 31 NP NP NP 12G 11G 10G 9G 37 38 39 40 41 42 43	F1 F1 NP NP NP Pv Pu Pt 13 14 15 16 17 18 19 20 Pm Pk Pj Ph Pg Pf Pe Pd 25 26 27 28 29 30 31 32 NP NP NP 12G 11G 10G 9G 8G 37 38 39 40 41 42 43 44	F1 F1 NP NP NP Pv Pu Pt Ps 13 14 15 16 17 18 19 20 21 Pm Pk Pj Ph Pg Pf Pe Pd Pc 25 26 27 28 29 30 31 32 33 NP NP NP 12G 11G 10G 9G 8G 7G 37 38 39 40 41 42 43 44 45	F1 F1 NP NP NP Pv Pu Pt Ps Pr 13 14 15 16 17 18 19 20 21 22 Pm Pk Pj Ph Pg Pf Pe Pd Pc Pb 25 26 27 28 29 30 31 32 33 34 NP NP NP 12G 11G 10G 9G 8G 7G 6G 37 38 39 40 41 42 43 44 45 46	F1 F1 NP NP Pv Pu Pt Ps Pr Pp 13 14 15 16 17 18 19 20 21 22 23 Pm Pk Pj Ph Pg Pf Pe Pd Pc Pb Pa 25 26 27 28 29 30 31 32 33 34 35 NP NP NP 12G 11G 10G 9G 8G 7G 6G 5G 37 38 39 40 41 42 43 44 45 46



ADJUSTMENT PROCEDURES

Preparation

1.Input

FM mono:1kHz,75kHz devi.,60dB/ μ V FM stereo:1kHz,75kHz devi.,60dB/ μ V Pilot signal 19kHz 7.5kHz devi.

AM:400Hz 30% mod.

2.Outputs

Connect the non-inductive type resistors of 8 ohms to the speaker terminals A unless otherwise noted.

TX-SV9030

3. Standard Knob Positions

Master Volume Control	Maximum
Bass Control	Center
Treble Control	Center
Balance Control	Center
Input selector	CD
Tape 2 Monitor	OFF
Muting	OFF
Loudness	OFF
Speakers	ON
Dolby Surround	OFF
Center Mode	Wide Band
Delay Time	20 ms
Center Level	0 dB
Rear Level	0 dB

TX-9022RDS

3. Standard Knob Positions

Master Volume Control	Maximum
Bass Control	Center
Treble Control	Center
Balance Control	Center
Input selector	CD
Tape 2 Monitor	OFF
Muting	OFF
Loudness	OFF
Speakers	A

Idling Current Adjustment

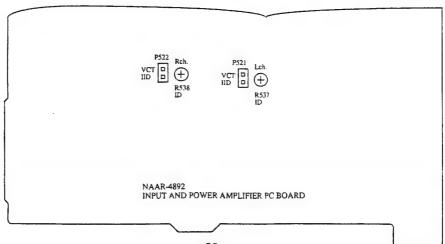
Connect the DC voltmeter to the terminals P521, P522, and P821 (VCT and IID) on the main circuit pc board. Adjust the trim resistors R537, R538 and R837 so that the indicator of voltmeter becomes 3 ± 0.5 mV. NOTE:Adjust after switching on for 5 minutes.

Set Volume knob to the minimum position.

Idling Current Adjustment

Connect the DC voltmeter to the terminals P521, and P522 (VCT and IID) on the main circuit pc board. Adjust the trim resistors R537, and R538 so that the indicator of voltmeter becomes $3 \pm 0.5 \text{mV}$. NOTE:Adjust after switching on for 5 minutes.

Set Volume knob to the minimum position.



Set the unit to the test mode.

- 1. Press and hold down the CD button, then press the Power button.
- 2. " TEST-" is displayed on the display.
- 3. While "TEST-" is displayed, press the FM key.

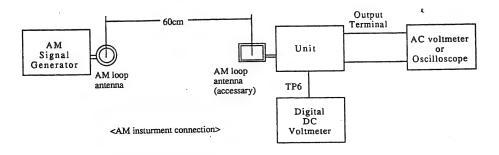
FM ADJUSTMENT

I WI ADOOTHIERT									
Item	Step	Connection of instrument	FM SG output	Stereo modu- lator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
	1					DC voltmeter	L101	0±20mV	FM MUTE/MODE
FM IF/RF 2		Fig.1	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)		99.0MHz	AC voltmeter	IFT on the front end Maximum		switch:ON/STEREO Repeat the steps 1
			(Jubi(Jub)			Distortion analyzer	L102	Minimum	and 3 until no further adjustment is necessary.
Stereo Distortion		Fig.2	99.0MHz Ext. mod.65dBf(60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't turn more than ±180°
Stereo	1	Fig.2	99.0MHz Ext. mod.	Channel L 1kHz	99.0MHz	Channel R AC voltmeter	er	Minimum	Maximum and
Separation	2		65dBf(60dB)	Channel R 1kHz	Channel R	Channel L AC voltmeter	R202	Minimum	same separation
Muting Level		Fig.2	99.0MHz 21.2dBf(16dB)		99.0MHz	Oscilloscope or TUNED indicator	R101	Signal output or light on	
RDS		Fig.3	99.0MHz Ext. mod.40dB	RDS data or 57kHz 3% devi.	99.0MHz	Oscilloscope	R786	Maximum	TX-9022RDS only

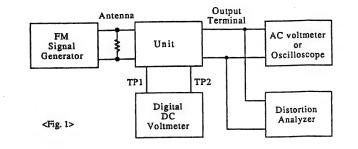
AM ADJUSTMENT

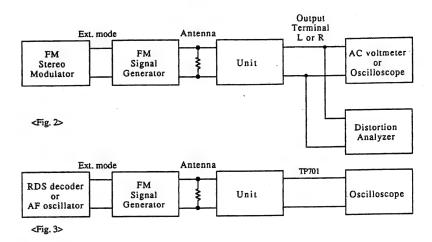
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1 .		522kHz	Digital DC voltmeter	OSC coil on RF block L151	1.3±0.1V
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	999kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L152	Maximum

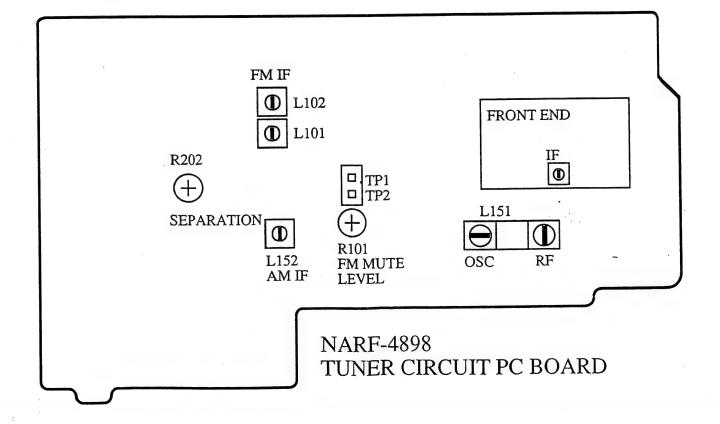
Reference Specification
FM tuned voltage:87.5MHz~108.0MHz
More than 1.3V~Less than 10V
AM tuned voltage:522kHz~1611kHz
1.3±0.2V~Less than 9.0V



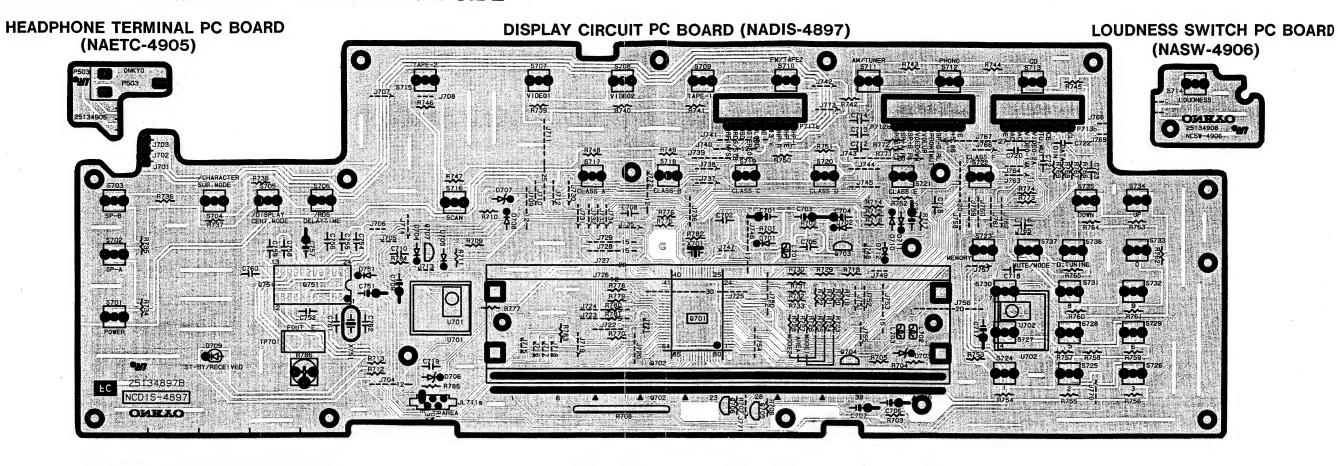


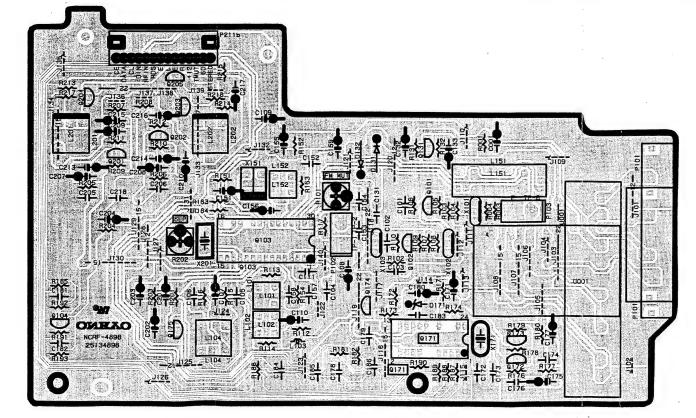




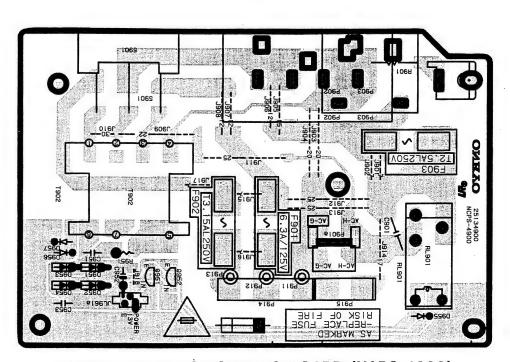


PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

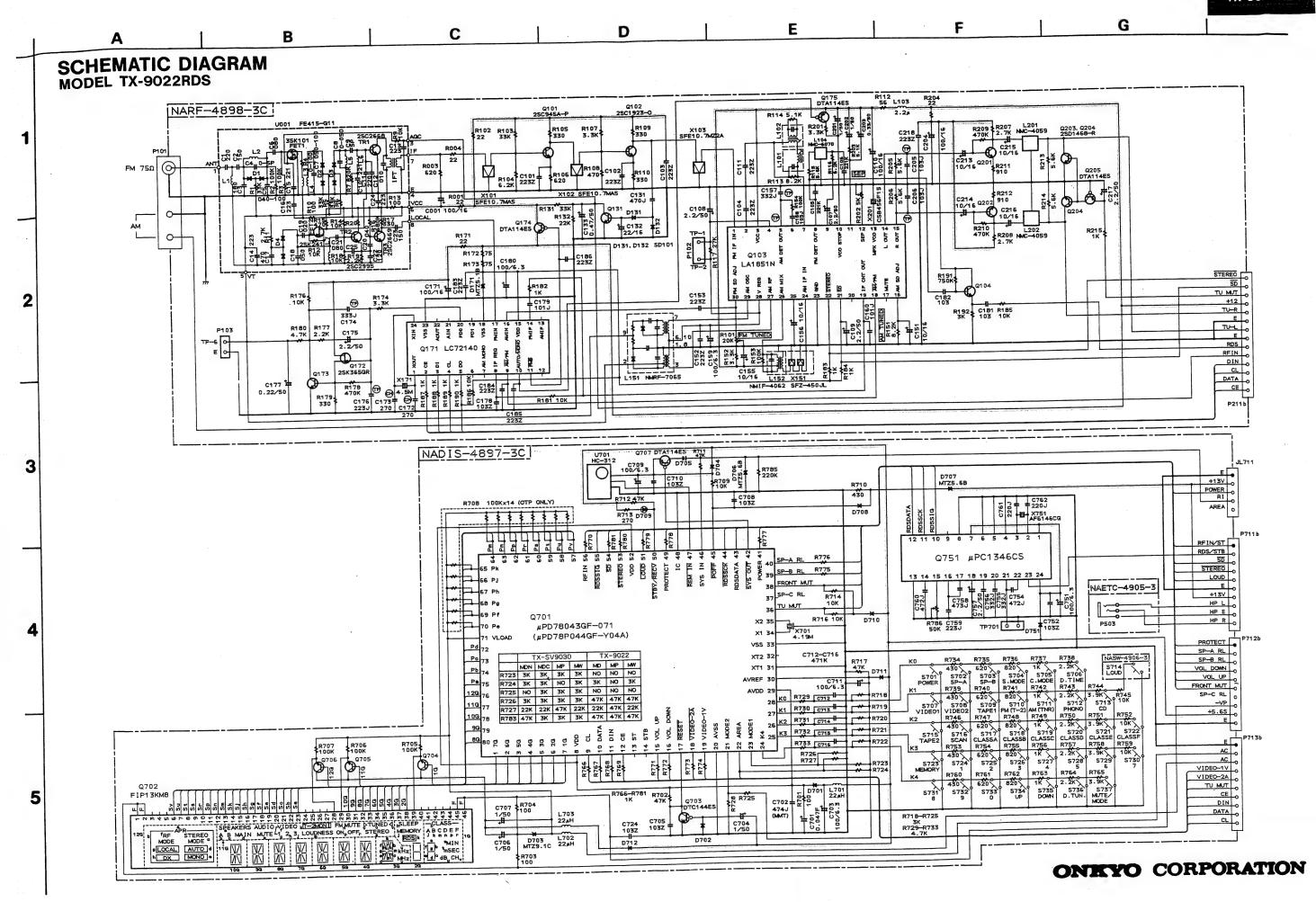


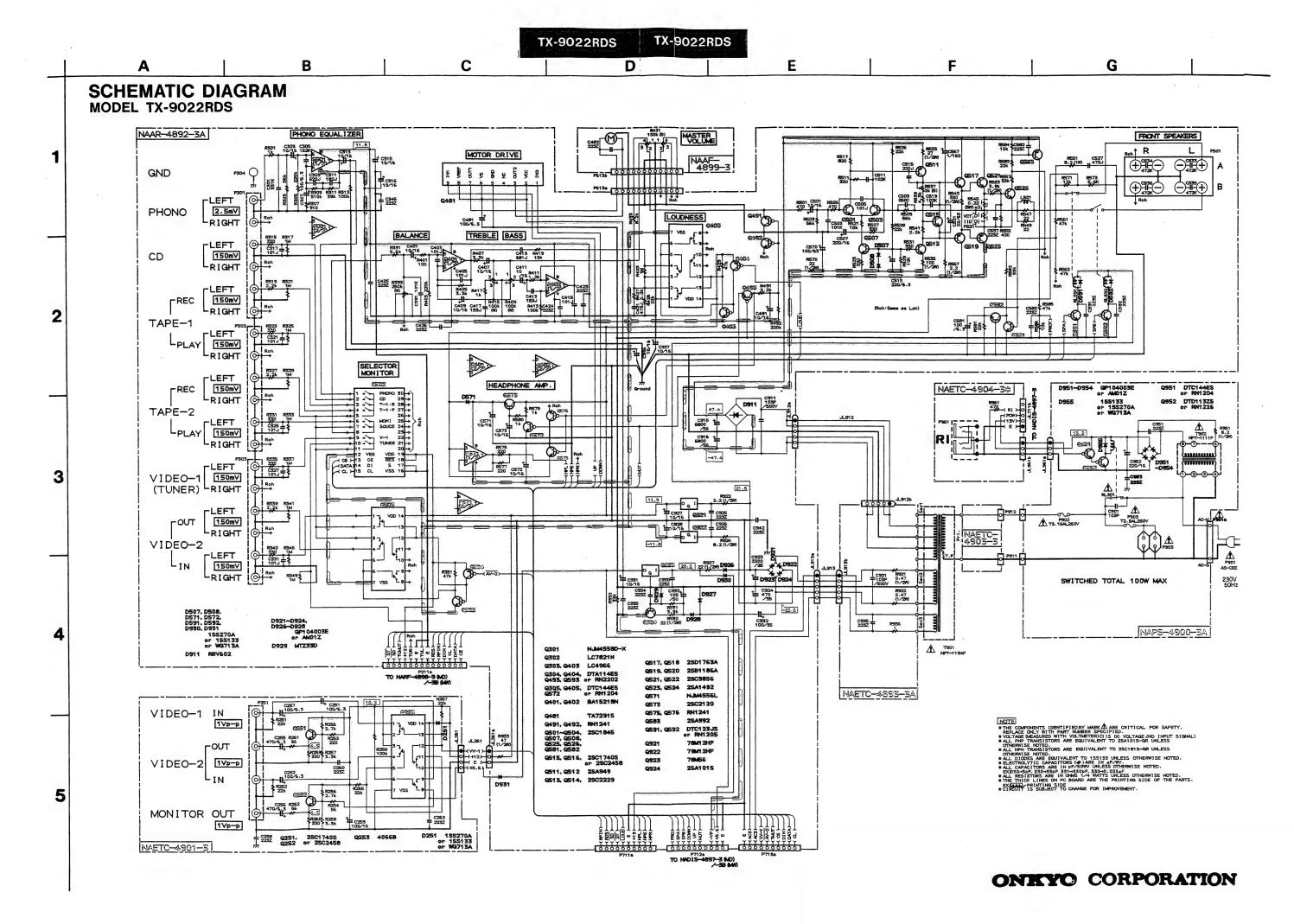


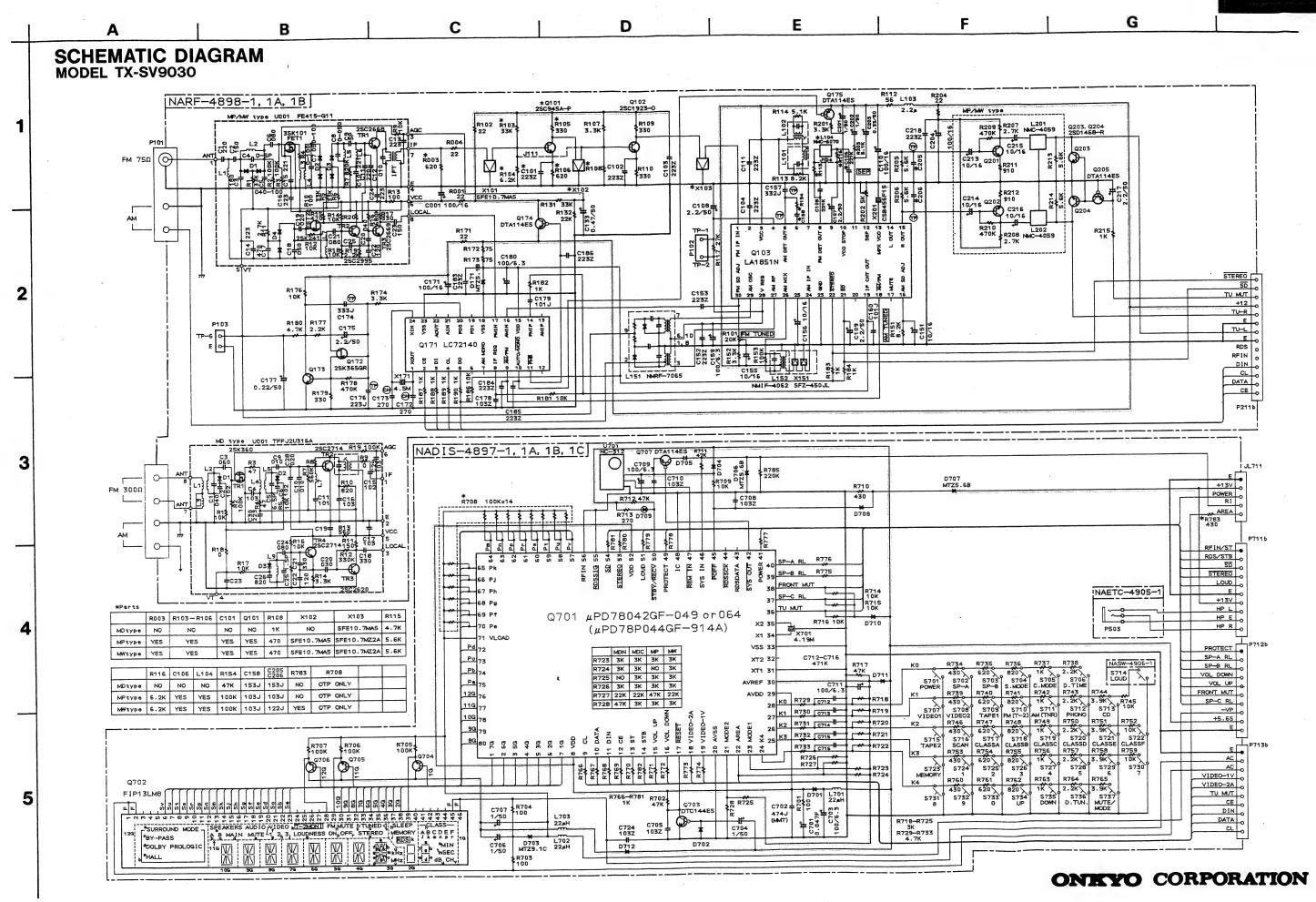
TUNER CIRCUIT PC BOARD (NARF-4898)



POWER SUPPLY CIRCUIT PC BOARD (NAPS-4900)

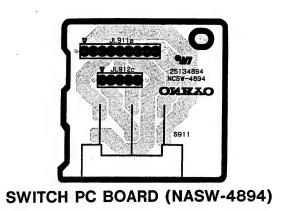


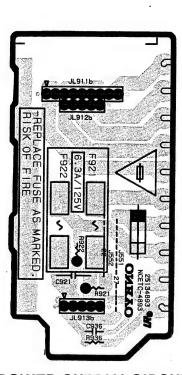






PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE ES SE SE SE E SE LC7821N 9302 0



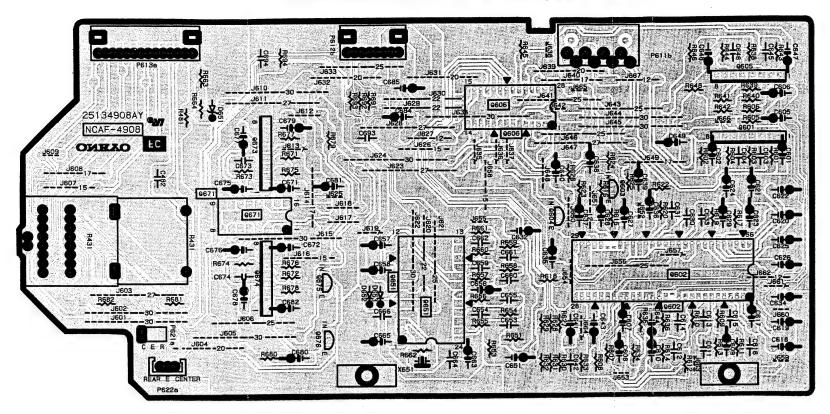


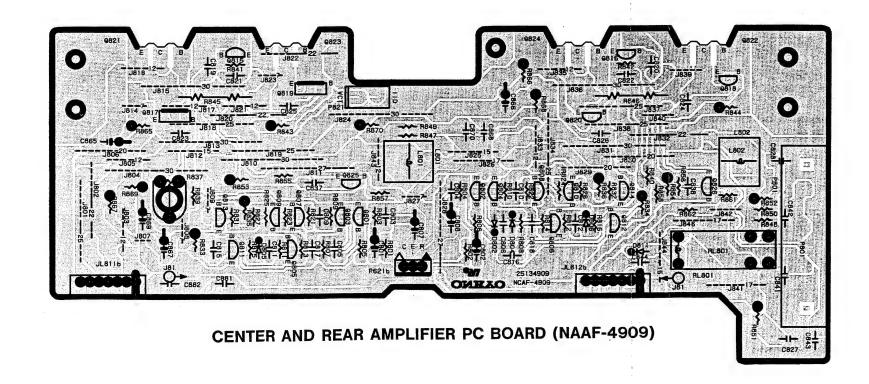
POWER SUPPLY CIRCUIT PC BOARD (NAETC-4893)

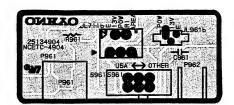
MAIN CIRCUIT PC BOARD (NAAR-4892)

PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

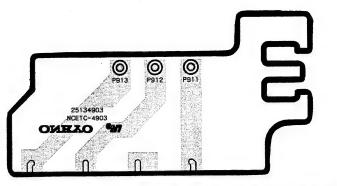
SURROUND CIRCUIT PC BOARD (NAAF-4908)



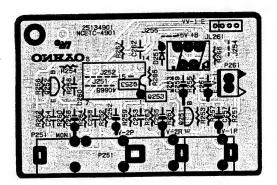




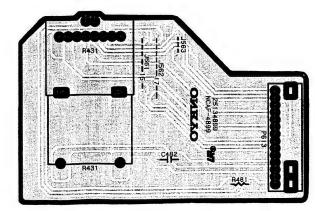
RI TERMINAL PC BOARD (NAETC-4904)



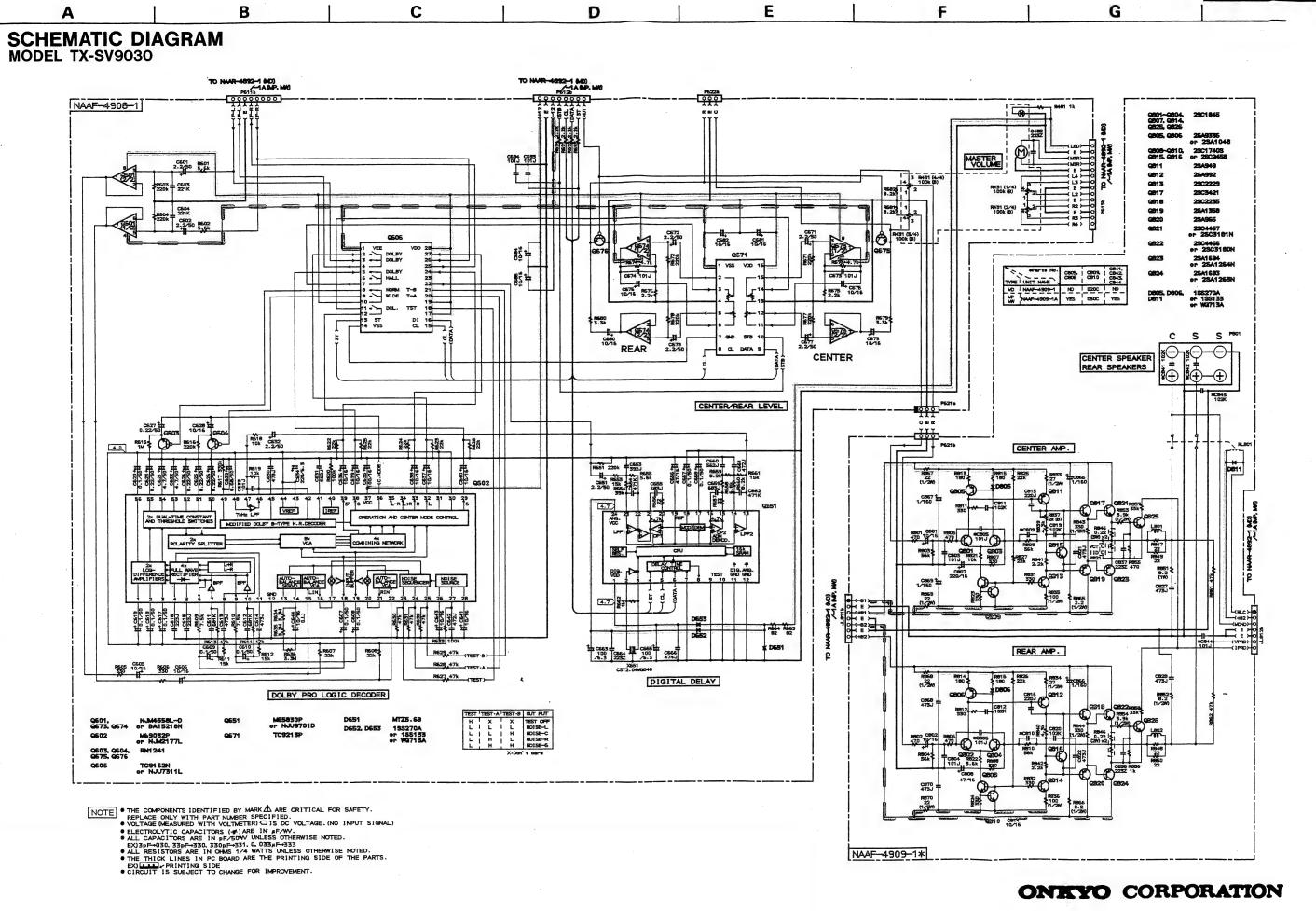
PRIMARY CIRCUIT PC BOARD (NAETC-4903)



VIDEO CIRCUIT PC BOARD (NAETC-4901)



VOLUME CIRCUIT PC BOARD (NAAF-4899)



2

PRINTED CIRCUIT BOARD-PARTS LIST

TX-9022RDS

MADI CIDCUIT	PC BOARD (NAA	P. 4802 3A)			•
	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
CIRCUIT NO.	ICs	DESCRIPTION	CIRCUIT NO.	Diodes	DESCRIPTION
0001	222502	NJM4558D-X	D507,D508	223222,	WG713A,
Q301	22240280	LC7821N	D507,D508 D571,D572	223205 or	1SS270A or
Q302	2224025	LC4966	D591,D592	223163	1SS133
Q303,Q403			-	22380038	RBV602
Q401,Q402	22240247	BA15218N	D911 D921-D924	22380036 22380035 or	GP104003E or
Q481	22240239	TA7291S		22380035 01	AM01Z
Q571	22240752	NJM4556L	D926-D928	224453304	MTZ33D
Q921	222780125NEC	78M12HF	D929		
Q922	222790125	79M12HF	D930,D931	223222, 223205 or	WG713A, 1SS270A or
Q923	222780565JRC	78M56		223163	1SS133
	Transistors	DT 4 11 4EC			133133
Q304,Q404	2213510 or	DTA114ES or	·	Coils	5 1 2C
Q493	2214350	RN2202	L501,L502	231176S	S-1.3C
Q305,Q405	221282 or	DTC144ES or	COO.4	Capacitors	10 E 16VEles
Q572	2213560	RN1204	C303,C304	354741009	10 μ F,16V,Elect.
Q491,Q492	2213631 or	RN1241-A or	C307,C308	354721019	100 μ F,6.3V,Elect.
Q575,Q576	2213632	RN1241-B	C309,C310	374726224	6200pF±5%,50V,Plastic
Q501-Q504	2211732 or	2SC1845-F or	C311,C312	374721824	1800pF±5%,50V,Plastic
Q507,Q508	2211733	2SC1845-E	C313-C316	354741009	10 μ F,16V,Elect.
Q511,Q512	2211353 or	2SA949-O or	C391,C392	374721015	100pF±10%,50V,Plastic
	2211354	2SA949-Y	C401,C402	354741009	10 μ F,16V,Elect.
Q513,Q514	2211633 or	2SC2229-O or	C407-C412	354741009	10 μ F,16V,Elect.
	2211634	2SC2229-Y	C413,C414	374721534	0.015μ F±5%,50V,Plastic
Q515,Q516	2213284 or	2SC1740S-R or	C417,C418	374721534	0.015μ F±5%,50V,Plastic
	2212115	2SC2458-GR	C421,C422	374724734	0.047μ F±5%,50V,Plastic
Q517,Q518	2202034 or	2SD1763A-D or	C481,C514	354721019	100 μ F,6.3V,Elect.
	2202035	2SD1763A-E	C491	354741009	10 μ F,16V,Elect.
Q519,Q520	2202024 or	2SB1186A-D or	C501,C502	354741009	10 μ F,16V,Elect.
	2202025	2SB1186A-E	C503,C504	374721015	100pF±10%,50V,Plastic
Q521,Q522	2201653, *		C507,C508	354742219	220 μ F,16V,Elect.
	2201654 or *	2SC3856-Y or	C513,C514	354722219	220 μ F,6.3V,Elect.
	2201655 *	2SC3856-P	C521,C522	354772209	22 μ F,63V,Elect.
Q523,Q524	2201663, *	2SA1492-O,	C527,C528	374724734	$0.047 \mu \text{ F} \pm 5\%,50 \text{V,Plastic}$
	2201664 or *	2SA1492-Y or	C567,C568	354700109	1μ F,160V,Elect.
	2201665 *	2SA1492-P	C570	354771019	100 μ F,63V,Elect.
Q525,Q526	2211732 or	2SC1845-F or	C571-C573	354741009	10μ F,16V,Elect.
	2211733	2SC1845-E	C581	354721019	100μ F,6.3V,Elect.
Q573	2211163 or	2SC2120-O or	C915,C916	3504266 or #	6800 μ F,56V or
	2211164	2SC2120-Y		3504267 #	6800 μ F,56V,Elect.
Q581,Q582	2211732 or	2SC1845-F or	C923	354753329	3300μ F,25V,Elect.
	2211733	2SC1845-E	C924	354764719	470 μ F,35V,Elect.
Q583	2211792 or	2SA992-F or	C927,C928	354741009	10 μ F,16V,Elect.
	2211793	2SA992-E	C931	354741009	10 μ F,16V,Elect.
Q591,Q592	2213640 or	DTC123JS or	C932	354761019	100μ F,35V,Elect.
	2214660	RN1205	C933	354781019	100 μ F,50V,Elect.
Q924	2211455	2SA1015-GR	C936-C938	354741009	10 μ F,16V,Elect.
				Resistors	
			R393	5104225	N11RGLC250KWT22Z, Balance
			R409	5104230	N14RLC100KWT22Z,Bass
			R415	5104230	N14RLC100KWT22Z,Treble
		·	2		

CIRCUIT NO. PART NO. DESCRIPTION Resistors R533,R534 443522704 27 ohm,1/2W,Metal oxide	
R533,R534 443522704 27 ohm,1/2W,Metal oxide	
R535,R536 443521014 100 ohm,1/2W,Metal oxide	
R537,R538 5210259 N06HR 2KBC,Trim	
R543,R544 443523314 330 ohm,1/2W,Metal oxide	
R545,R546 4000132Y $0.22 \text{ ohm} \times 2.5\text{W} + 5\text{W}$,Meta	al plate
R551,R552 453630824 8.2 ohm,1 W,Metal	
R553,R554 443523924 3.9 kohm,1/2W,Metal oxide	
R567,R568 453530224 2.2 ohm,1/2W,Metal	
R570 443522204 22 ohm,1/2W,Metal oxide	
R923 453530224 2.2 ohm,1/2W,Metal	
R924 453530824 8.2 ohm,1/2W,Metal	
R927,R930 443522204 22 ohm,1/2W,Metal oxide	
R933 443524704 47 ohm,1/2W,Metal oxide	
Relaies	
RL591,RL592 25065339 NRL-2P5A-DC24-046	
Plugs	
P211a 25055652 NPLG-14P608	
P613a 25055651 NPLG-12P607	
Terminals	
P301-P303 25045300 NPJ-6PDBL-159	
P501 25060158 NTM-8PDMN084	
Sockets	
P711a-P713a 25051046 NSCT-10P833	
JL261a 25051087 NSCT-3P874	
JL912a,JL913a 25051109 NSCT-5P896	
POWER SUPPLY CIRCUIT PC BOARD(NAETC-4893-3A)	
CIRCUIT NO. PART NO. DESCRIPTION	
R921,R922 453534794 0.47 ohm,1/2W,Metal resistor	ors
DISPLAY CIRCUIT PC BOARD (NADIS-4897-3C)	
CIRCUIT NO. PART NO. DESCRIPTION	
ICs	
Q701 22240758Y μ PD78043GF-071	
Q751 22240679 μ PC1346CS	
FL tube	
Q702 212128Y FIP13KM8	
Remote control sensor	
U701 24130010Y HC-312	
Transistors	
Q703 221282 or DTC144ES or	
2213560 RN1204	
Q704-Q706 2213284 or 2SC1740S-R or	
2212115 2SC2458-GR	
Q707 2213510 or DTA114ES or	
2214350 RN2202	

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D701,D702	223205 or	1SS270A or
D704,D705	223163	1SS133
D703	224450913	MTZ9.1C
D706,D707	224450562	MTZ5.6B
D708,D751	223205 or	1SS270A or
D710-D712	223163	1SS133
D709	225291D	SEL4910D-D,LED
	Resonator	
X701	3010163	CST4.19MGW,Ceramic
X751	3010203	AF6146CG,X'tal
	Coils	
L701-L703	233454K220	NCH-1452 220K
	Capacitors	
C701	3000075Y	0.047F,5.5V,Super
C702	375524744	$0.47 \mu\text{F}\pm5\%,50\text{V,Plastic}$
C703,C709	354721019	100μ F,6.3V,Elect.
C704	354780109	1μ F,50V,Elect.
C706,C707	354780109	1μ F.50V Elect.
C711	354721019	100μ F,6.3V,Elect.
C751	354721019	100μ F,6.3V,Elect.
C753,C754	374724724	4700pF±5%,50V,Plastic
C755,C756	374723324	3300pF±5%,50V,Plastic
C757	354780229	2.2 μ F,50V,Elect.
C758	374724734	$0.047 \mu\text{F} \pm 5\%$,50V,Plastic
C759	374722234	0.022μ F \pm 5%,50V,Plastic
C760	374724724	4700pF±5%,50V,Plastic
	Resistor	
R786	5210265	N06HR50KBC,Trim
	Switches	
S701-S713	25035652	NPS-111-S604
S715-S737	25035652	NPS-111-S604
	Plugs	
P711b-P713b	25055659	NPLG-10P615
	Holder	
	27190937Y	FL tube
	Retainer	
	27141575Y	RI terminal
	2/1.12/01	

CAUTION:Replacement for transistor of mark *, if necessary, must be made from the same beta group (H HE) as the original type.

CAUTIONS:Replacement for capacitor of mark # must be made the same sort capacitor.

PART NO. DESCRIPTION CRICUIT NO. CQUESTION	TUNER CIRCUI	T PC BOARD (NA	RF-4898-3C)				
TO001 24088 FE415-G11 CD01, CD02 354780109 1 μ F.50V.Elect. CD03 354780109 1 μ F.50V.Elect. CD03 232407497 LA1851N CD04 354741019 100, 23 μ F.50V.Elect. CD04 CD04 354741019 100, 23 μ F.50V.Elect. CD04 CD04 354741009 101 μ F.55%,50V.Plostic. CD04 CD04 354741009 101 μ F.50%.Elect. CD04 CD04 254741009 101 μ F.50%.Elect. CD04 CD04 25474009 101 μ F.50%.Elect. CD04 CD04 25474009 101 μ F.50%.Elect. CD04 CD04 25474009 101 μ F.50%.Elect. CD04 25474009 101 μ F.50%.Elect. CD04 25474009 102 μ F.50%.Elect. CD04 25474009 101 μ F.50%.Elect. CD04 25474009 25474009 25474009 25474009 25474009 25474009 25474009 25474009 25474009 25474009 25474009	CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.		DESCRIPTION
ICS		Front end			Capacitors		
QI013 Z2240790Y LA1851N C204 354741019 10 μ F15V, Elect. QI71 72240750Y LC72140 C205, C206 374721034 0.01 μ F±5W, 50V, Plastic QI01 2210746 28C945A-P C217 354780299 22 μ F50V, Elect. QI02 2211723 28C1923-O Resitors Poll Plant Pl	TU001	240089	FE415-G11	C201,C202	354780109		1μ F,50V,Elect.
		ICs		C203	354783399		0.33μ F,50V,Elect.
Transistors	Q103	22240749Y	LA1851N	C204	354741019		100 μ F,16V,Elect.
Qi01 22IU746 25C945A.P C217 354780229 2.2 μ F 50 γ Elect. Qi02 2211723 2SC1923-O Resistors 2121246 X5C1749-R or Ri01 5210263 N06HR 20KBC,Trim Q131,Q173 2213244 or 25C1749-R or Terminal Terminal Q201,Q202 2212115 25C3458-GR P101 25050117 NTM-2PDML051 Q172 2212445 25K365-GR P211b 2505996 NSCT-14P773 Q203 2212430 RN2202 C2030,C04 NSCT-14P773 NSCT-14P773 Q203 2212794 S2D1468-R VOLUME CIRCUIT NO. PART NO. DESCRIPTION D10ds FILE SECRETORY PART NO. DESCRIPTION DESCRIPTION D171 224450512 MTZ5.1B P613b 25059985 NSCT-12P772,Sodet L101 239479 XTL-4.5M.Crystall POWER SUPPL Y CIRCUIT PC BOARD (NAPS-4900-3A) DESCRIPTION X101 3100227Y CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION X101	Q171	22240750Y	LC72140	C205,C206	374721034		0.01μ F±5%,50V,Plastic
Q102 2211723 2SC1932-O Resistors Resistors Q104 2213284 or 2SC1749S-RoR R101 5210259 N06HR 20KBC,Trim Q131,Q173 2213284 or 2SC1749S-RoR R202 5210259 N06HR 20KBC,Trim Q201,Q202 2212115 2SC2488-GR P101 25066117 NTM-2PDML051 Q174,Q175 2213510 or DTA14ES or P11b 25059986 NSCT-14P773 Q203 2214350 RN2202 DISCEPPTION PART NO. DESCRIPTION D131,D132 23191 SD101 R431,R432 5104334Y N16GCL00KBT25F,Variable,Volume D171 22445012 MTZ-5,HG,Crystal POWER SUPPL-Y CIRCUIT TO EDAT DATA PARA-980-3A) X171 3100228Y XTL-4,5M,Crystal POWER SUPPL-Y CIRCUIT TO EDAT DATA PARA-900-3A) X201 3010227Y CSB456F15,Ceranic CIRCUIT NO. PART NO. DESCRIPTION L101 23345Y NFF-4081 Q51 2212850 RN1204 L102 233458Y NFF-4082 2215550 RN1204 <td></td> <td>Transistors</td> <td></td> <td>C213-C216</td> <td>354741009</td> <td></td> <td>10 μ F,16V,Elect.</td>		Transistors		C213-C216	354741009		10 μ F,16V,Elect.
	Q101	2210746	2SC945A-P	C217	354780229		2.2 μ F,50V,Elect.
2212115 25C2458-GR R202 5210259 N06HR2KBC,Trim Q131,Q173 2213234 or 2C1740S-R or Terminal Q201,Q202 2212115 25C2458-GR P101 25060117 NTH-2PDML051 Q172 2212445 25K365-GR Socket Q174,Q175 2213310 R7220 Q205 2214350 R72202 Q203 2214350 R72202 Q204 2212794 25D1468-R VOLUME CIRCUIT PC BOARD (NAAF-4899-3) Diodes CIRCUIT NO. PART NO. DESCRIPTION D131,D132 22191 SD101 R431,R432 5104334Y N16GGL100KBT25F.Variable,Volume D171 224450512 MTZ5.1B P613b 25050985 NSCT-12P772,Socket Resonators Resonators X171 3010228Y XTL-4.5M,Crystal POWER SUPPL-Y CIRCUIT PC BOARD (NAPS-4900-3A) Q203 201227Y C5B456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION D131,D102 233457Y NFIF-4081 Q951 221250 DESCRIPTION L101 233457Y NFIF-4081 Q951 2212560 RN1204 L102 233458Y NFIF-4082 Q952 2213560 or DT011325 or L104 233383 NMC-6070 Q214680 RN1224 L201 233383 NMC-6070 Q214680 RN1225 L201 233355 NMC-6070 Q214680 RN1226 L201 233183 NMR-605 D951-D954 22380035 or GP104003E or L151 222163 NMRF-7065 D951-D954 22380035 or GP104003E or L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 23319 NMF-4062 Q232305 or GP104003E or L153 23199 NMF-4062 Q232305 or GP104003E or L154 Q300071 SFE10.7MA25 Q232305 or GP104003E or L152 23199 NMF-4062 Q2300071 M F F F F F F F F F F F F F F F F F F	Q102	2211723	2SC1923-O		Resistors	:	
Q31,Q173 Q213284 or Q3C1740S-R or Feminal Feminal P101 P	Q104	2213284 or	2SC1740S-R or	R101	5210263		N06HR 20KBC,Trim
Q201,Q202 212115 2SC24S8-GR P101 25060117 NTM-2PDML051 Q174 2121445 2SK365-GR P211b 25050986 NSCT-14P773 Q203 214350 RX2202 P2030,Q204 2121794 2SD1468-R VOLUME CIRCUIT NO. PART NO. DESCRIPTION D131,D132 2213191 SD101 R431,R432 5104334Y N168GL100KBT25F,Variable,Volume D171 Resonators RTZ-14.5M,Crystal POWER SUPPLY CIRCUIT PC BOARD (NAF-4809-3A) X171 3010222Y XTL4-5M,Crystal POWER SUPPLY CIRCUIT PC BOARD (NAF-4900-3A) X201 301022YY CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION X101 301022YY CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION X101 23345YY NIFIF-4081 Q951 2213650 RN1204 L104 23345A NMC-6070 2214560 RN1204 L104 23345A NMC-6070 DESCRIPTION RN1204 L152 232163 NMF-7065 <td< td=""><td></td><td>2212115</td><td>2SC2458-GR</td><td>R202</td><td>5210259</td><td></td><td>N06HR2KBC,Trim</td></td<>		2212115	2SC2458-GR	R202	5210259		N06HR2KBC,Trim
172 2212445 25K365-GR 21150 2505986 NSCT-14P773 174 175 2213510 or DTA114ES or P111b 2505986 NSCT-14P773 175 221430 RN2202 176 221430 RN2202 177 221450 RN2202 178 223191 SD101 R431,R432 5104334	Q131,Q173	2213284 or	2SC1740S-R or		Terminal		
174,Q175 2213510 or DTA114ES or P211b 25050986 NSCT-14P773 C205 C205 C214350 RN2202 C205 C204350 RN2202 C203,Q204 2212794 25D1468-R VOLUME CIRCUIT NO. PART NO. DESCRIPTION NAF-4899-3) Diodes D131,D132 223191 SD101 R431,R432 51043347 N16RGL100KET25F,Variable,Volume D171 224450512 MTZ5.1B P613b 25050988 NSCT-12P772,Socket CIRCUIT NO. PART NO. DESCRIPTION NAF-4900-3A) CIRCUIT NO. PART NO. DESCRIPTION NAF-4900-3A) CIRCUIT NO. PART NO. DESCRIPTION CIRCUIT NO. PART NO. DESCRIPTION CIRCUIT NO. PART NO. DESCRIPTION PART NO. PART N	Q201,Q202	2212115	2SC2458-GR	P101	25060117		NTM-2PDML051
Q205 2214350 RN2202 Q203 Q2040 Diodes 2212794 25D1468-R VOLUME CIRC UIT NO. PART NO. DESCRIPTION D131,D132 223191 SD101 R431,R432 5104334Y N16RGL100KBT25F,Variable,Volume D171 224450512 MTZ5.1B P613b 25050985 NSCT-12P772,Socket X171 3010228Y XTL-4.5M,Crystal POWER SUPPLY CIRC UIT PC BOARD (NAPS-4900-3A) X201 3010227Y CSB456F15,Ceramic CIRC UIT NO. PART NO. DESCRIPTION Colls and transformers Transistors L101 233457Y NFIF-4081 Q951 221282 or DTC144ES or DTC144E	Q172	2212445	2SK365-GR		Socket		
Part	Q174,Q175	2213510 or	DTA114ES or	P211b	25050986		NSCT-14P773
Q203,Q204 2121794 2SD1468-R CIRCUIT NO. PART NO. DESCRIPTION DESCRIPTION D131,D132 223191 SD101 R431,R432 5104334Y N166GL100KBT25F,Variable,Volume D171 244450512 MTZ5.1B P613b 25050985 NSCT-12P77Z,Socket Resonators X171 3010228Y XTL-4.5M,Crystal POWER SUPFLY CIRCUIT PC BOARD (NAPS-4900-3A) X201 3010228Y XTL-4.5M,Crystal POWER SUPFLY CIRCUIT PC BOARD (NAPS-4900-3A) L101 233457Y NFIF-4081 Q951 221280 or DTC144ES or L101 233458Y NFIF-4082 Q952 2213650 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 RN1226 L104 233383 NMC-6070 D951-D95 2214680 RN1226 L151 232163 NMF-7065 D951-D95 233222 WG713A, X101,X102 3010071 SFE10.7MA5 2232050 20006 NB27150400 X103 3010123 SFE10.7ME2A 223205 or 2	Q205	2214350	RN2202				
D131,D132 223191 SD101 R431,R432 5104334Y N16RGL100KBT25F,Variable,Volume D171 224450512 MTZ5.1B P613b 25050985 NSCT-12P772,Socket X171 3010228Y XTL-4.5M,Crystal POWER SUPPLY CIRCUIT PC BOARD (NAPS-4900-3A) X201 3010227Y CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION Coils and transformers Transistors Transistors Transistors L101 23345TY NFIF-4081 Q951 221282 or DTC144ES or L102 233458Y NFIF-4082 Q952 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DT0113ZS or L104 233383 NMC-6070 Q952 2213650 or DT0113ZS or L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L151 232163 NMRF-4062 22380035 or GP104003E or X101,X102 3010071 SFE10.7MA5 22316 SST200 or ISS270A or		2212794	2SD1468-R	VOLUME CIRC	CUIT PC BOARI	O (N	(AAF-4899-3)
D171 Resonators Resonat		Diodes		CIRCUIT NO.	PART NO.		DESCRIPTION
X171 3010228Y XTL-4.5M,Crystal POWER SUPPLY CRCUIT PC BOARD (NAPS-4900-3A) X201 3010227Y CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION Coils and transformers Transistors L101 233457Y NFIF-4081 Q951 221282 or DTC144ES or L102 233458Y NFIF-4082 2213650 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD1132S or L104 233383 NMC-6070 2214680 RN1226 L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 2323205 or GP104003E or L152 232193 NMF-3065 D951-D954 22380035 or GP104003E or X101,X102 3010071 SFE10.7MA5 223220, WG713A, SS7270A or X103 3010130 SFE10.7MA22A 223163 ISS133 X151 301023 SFZ-450JL C952 334742219 220 μ F,16V,Elect. <td>D131,D132</td> <td>223191</td> <td>SD101</td> <td>R431,R432</td> <td>5104334Y</td> <td></td> <td>N16RGL100KBT25F, Variable, Volume</td>	D131,D132	223191	SD101	R431,R432	5104334Y		N16RGL100KBT25F, Variable, Volume
X171 3010228Y XTL-4.5M,Crystal POWER SUPPLY CIRCUIT PC BOARD (NAPS-4900-3A) X201 3010227Y CSB456F15,Ceramic CIRCUIT NO. PART NO. DESCRIPTION L101 23345TY NFIF-4081 Q951 221282 or DTC144ES or L102 233458Y NFIF-4082 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD1132S or L104 2333383 NMC-6070 D106es D106es L151 232163 NMC-4059 D956es D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 2232005 or 1SS270A or X103 3010120 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450IL Capacitors Capacitors C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 <td>D171</td> <td>224450512</td> <td>MTZ5.1B</td> <td>P613b</td> <td>25050985</td> <td></td> <td>NSCT-12P772,Socket</td>	D171	224450512	MTZ5.1B	P613b	25050985		NSCT-12P772,Socket
Note		Resonators					
L101 233457Y NFIF-4081 Q951 221282 or DTC144ES or L102 233458Y NFIF-4082 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD113ZS or L104 233383 NMC-6070 214680 RN1226 L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10,7MA2A 223603 or 1SS270A or X103 3010130 SFE10,7MA2A 223163 1SS133 X151 3010123 SFZ-450JL Capacitors Capacitors Cpol 3500065A DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C132 354742009 22 μ F,50V,Elect. F092	X171	3010228Y	XTL-4.5M,Crystal	POWER SUPPL	Y CIRCUIT PC	во	ARD (NAPS-4900-3A)
L101 233457Y NFIF-4081 Q951 221282 or DTC144ES or L102 233458Y NFIF-4082 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD113ZS or L104 233383 NMC-6070 2214680 RN1226 L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232199 NMIF-4062 2380046 AM01Z Ceramic filters D955 233220, WG713A, X103 3010130 SFE10.7MA5 223260 or 1SS270A or X103 3010123 SFZ-450JL Capacitors Capacitors C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C110,C171 354742109 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 35474209 22 μ F,50V,Elect. T902 2300671 NPT-1111P	X201	3010227Y	CSB456F15,Ceramic	CIRCUIT NO.	PART NO.		DESCRIPTION
L102 233458Y NFIF-4082 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD113ZS or L104 233383 NMC-6070 2214680 RN1226 L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG7113A, X101,X102 3010130 SFE10.7MA2 22305 or 1SS270A or X103 3010123 SFZ-450JL Capacitors Capacitors C201 2354741019 100 μ F,16V,Elect. C952 354742219 20 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354782099 2.4 μ F,50V,Elect. T902 2300671 NPT-1111P		Coils and transform	ners		Transistors		
L102 233458Y NFIF-4082 2213560 RN1204 L103 233454M022 NCH-1452 022M Q952 2213650 or DTD113ZS or L104 233383 NMC-6070 2214680 RN1226 L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG7113A, X101,X102 3010130 SFE10.7MA2 22305 or 1SS270A or X103 3010123 SFZ-450JL Capacitors Capacitors C201 2354741019 100 μ F,16V,Elect. C952 354742219 20 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354782099 2.4 μ F,50V,Elect. T902 2300671 NPT-1111P	L101	233457Y	NFIF-4081	O951	221282 or		DTC144ES or
L103 233454M022 NCH-1452 022M Q952 2213650 or DTD113ZS or DTD113ZS or DL04 L104 233383 NMC-6070 2214680 RN1226 L201_L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or AM01Z L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 223205 or SE205 or SE270A		233458Y	NFIF-4082		2213560		RN1204
L104 23383 NMC-6070 2214680 RN1226 L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or GP104003E or L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 223205 or 1SS270A or X103 3010130 SFE10.7MZA 223163 1SS133 X151 3010123 SFZ-450IL Capacitors Capacitors C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. T902 2300671 NPT-1111P C151 354741009 10 μ F,16V,Elect. T902 2300671 NPT-1111P C152 354741009 10 μ F,16V,Elect. R1901 25065483 NR		233454M022	NCH-1452 022M	Q952	2213650 or		DTD113ZS or
L201,L202 233355A NMC-4059 Diodes L151 232163 NMRF-7065 D951-D954 22380035 or QP104003E or QP104004 QP104004004 QP104004004 QP104004 QP104004004 QP104004 QP104004 QP104004004 QP104004 QP104004		233383	NMC-6070		2214680		RN1226
L151 232163 NMRF-7065 D951-D954 22380035 or 22380046 GP104003E or AM01Z L152 232139 NMIF-4062 D955 22380046 AM01Z Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 223205 or 1SS270A or X103 3010123 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450JL Capacitors C901 3500065A Δ DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354780229 22 μ F,16V,Elect. T902 2300671 Δ NPT-1111P C151 354741009 10 μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C174 37472334 0.033 μ F±5%,50V,Plastic F903 252075 Δ 2.5A-SE-E		233355A	NMC-4059		Diodes		
L152 232139 NMIF-4062 22380046 AM01Z Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 223163 1SS270A or X103 3010130 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450IL Capacitors Capacitors CD01 3500065A Δ DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. T902 2300671 Δ NPT-1111P C151 354741009 10 μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C157 374723324 3300F±5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C176 37472334 0.015 μ F±5%,50V,Plastic F902 252075 Δ 2.5A-SE-EAK C175 35478029 2.2 μ F,50V,Elect. F903 252075 <t< td=""><td></td><td>232163</td><td>NMRF-7065</td><td>D951-D954</td><td>22380035 or</td><td></td><td>GP104003E or</td></t<>		232163	NMRF-7065	D951-D954	22380035 or		GP104003E or
Ceramic filters D955 223222, WG713A, X101,X102 3010071 SFE10.7MA5 223205 or 1SS270A or X103 3010130 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450IL Capacitors Capacitors C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. T902 230671 NPT-111P C151 354741009 10 μ F,16V,Elect. T902 230671 NPT-111P C155,C156 354741009 10 μ F,16V,Elect. RL901 25065483 NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic Fuses C158 374721534 0.015 μ F±5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C174 37472334 0.033 μ F±5%,50V,Plastic Fusesholders C175 354780229 2.2 μ F,50V,Elect.		232139	NMIF-4062		22380046		AM01Z
X103 3010130 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450JL Capacitors Capacitors C901 3500065A Δ DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. Power transformer C133 354784799 0.47 μ F,50V,Elect. T902 2300671 Δ NPT-1111P C151 354741009 10 μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3 V,Elect. F903 252075 Δ 2.5A-SE-EAK C174 374723334 0.033 μ F±5%,50V,Plastic F902 a,F0065 Δ YSH403T C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 Δ YSH403T C176 37472234 0.0022 μ F±5%,50V,Plastic		Ceramic filters		D955	223222,		WG713A,
X103 3010130 SFE10.7MZ2A 223163 1SS133 X151 3010123 SFZ-450JL Capacitors Capacitors C901 3500065A Δ DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. Power transformer C133 354784799 0.47 μ F,50V,Elect. T902 2300671 Δ NPT-1111P C151 354741009 10 μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3 V,Elect. F903 252075 Δ 2.5A-SE-EAK C174 374723334 0.033 μ F±5%,50V,Plastic F902 a,F0065 Δ YSH403T C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 Δ YSH403T C176 37472234 0.0022 μ F±5%,50V,Plastic	X101.X102	3010071	SFE10.7MA5		223205 or		1SS270A or
X151 3010123 SFZ-450JL Capacitors C901 3500065A \triangle DE7150FZ103PAC400V/125V C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. Power transformer C133 354784799 0.47 μ F,50V,Elect. T902 2300671 Λ NPT-1111P C151 354741009 10 μ F,16V,Elect. RL901 25065483 Λ NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic Fuses C158 374721534 0.015 μ F±5%,50V,Plastic F902 252076 Λ 3.15A-SE-EAK C159,C180 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 Λ YSH403T C176 374722234 0.022 μ F±5%,50V,Plastic F902a,F903a 25050065 Λ YSH403T		3010130	SFE10.7MZ2A		223163		
Capacitors C901 3500065A		3010123	SFZ-450JL		Capacitors		
C001 354741019 100 μ F,16V,Elect. C952 354742219 220 μ F,16V,Elect. C107-C109 354780229 2.2 μ F,50V,Elect. Resistor C110,C171 354741019 100 μ F,16V,Elect. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 22 μ F,16V,Elect. Power transformer C133 354784799 0.47 μ F,50V,Elect. T902 2300671 Λ NPT-1111P C151 354741009 10 μ F,16V,Elect. Relay C155,C156 354741009 10 μ F,16V,Elect. RL901 25065483 Λ NRL-1P5A-DC-12-084 C157 374723324 3300pF±5%,50V,Plastic F902 252076 Λ 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3V,Elect. F903 252075 Λ 2.5A-SE-EAK C174 374723334 0.033 μ F±5%,50V,Plastic F902a,F903a 25050065 Λ YSH403T C176 374722234 0.022 μ F±5%,50V,Plastic F902a,F903a 25050065 Λ YSH403T		Capacitors		C901	3500065A	Δ	DE7150FZ103PAC400V/125V
C107-C109 354780229 2.2μ F,50V,Elect. Resistor C110,C171 354741019 100μ F,16V,Elect. R951 453530824 $8.2 \text{ ohm,1/2W,Metal}$ C132 354742209 22μ F,16V,Elect. Power transformer C133 354784799 0.47μ F,50V,Elect. T902 2300671 Δ NPT-1111P C151 354741009 10μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C157 374723324 $3300p$ F $\pm 5\%$,50V,Plastic Fuses C158 374721534 0.015μ F $\pm 5\%$,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C159,C180 354721019 100μ F,6.3V,Elect. F903 252075 Δ 2.5A-SE-EAK C174 374723334 0.033μ F $\pm 5\%$,50V,Plastic F902a,F903a 25050065 Δ YSH403T C176 374722234 0.022μ F $\pm 5\%$,50V,Plastic F902a,F903a 25050065 Δ YSH403T	C001	_	100 μ F,16V,Elect.			_	
C110,C171 354741019 $100 \mu F,16V,Elect$. R951 453530824 8.2 ohm,1/2W,Metal C132 354742209 $22 \mu F,16V,Elect$. Power transformer C133 354784799 $0.47 \mu F,50V,Elect$. T902 2300671 \triangle NPT-1111P C151 354741009 $10 \mu F,16V,Elect$. RL901 25065483 \triangle NRL-1P5A-DC- 12 -084 C157 374723324 3300pF \pm 5%,50V,Plastic Fuses C158 374721534 $0.015 \mu F\pm$ 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 $100 \mu F,6.3V,Elect$. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 $0.033 \mu F\pm$ 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C175 354780229 $2.2 \mu F,50V,Elect$. F902a,F903a 25050065 \triangle YSH403T C176 374722334 $0.022 \mu F\pm$ 5%,50V,Plastic F902a,F903a 25050065 \triangle Socket					Resistor		, , ,
C132 354742209 22 μ F,16V,Elect. Power transformer C133 354784799 0.47 μ F,50V,Elect. T902 2300671 \triangle NPT-1111P C151 354741009 10 μ F,16V,Elect. Relay C155,C156 354741009 10 μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC- 1 2-084 C157 374723324 3300pF \pm 5%,50V,Plastic Fuses C158 374721534 0.015 μ F \pm 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3V,Elect. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 0.033 μ F \pm 5%,50V,Plastic F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F,50V,Plastic		354741019		R951	453530824		8.2 ohm,1/2W,Metal
C133 354784799 0.47 μ F,50V,Elect. T902 2300671 \triangle NPT-1111P C151 354741009 10 μ F,16V,Elect. Relay C155,C156 354741009 10 μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC- 11 -084 C157 374723324 3300pF \pm 5%,50V,Plastic Fuses C158 374721534 0.015 μ F \pm 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3V,Elect. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 0.033 μ F \pm 5%,50V,Plastic F902 25076 \triangle 3.15A-SE-EAK C175 354780229 2.2 μ F,50V,Elect. F903 25050065 \triangle YSH403T C176 374722234 0.022 μ F \pm 5%,50V,Plastic Socket			22 μ F.16V.Elect.			ner	
C151 354741009 10 μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC- 1 2-084 C155,C156 354741009 10 μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC- 1 2-084 C157 374723324 3300pF \pm 5%,50V,Plastic Fuses C158 374721534 0.015 μ F \pm 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3V,Elect. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 0.033 μ F \pm 5%,50V,Plastic Fuseholders C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F \pm 5%,50V,Plastic Socket			·	T902			NPT-1111P
C155,C156 354741009 10μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC- $\frac{1}{2}$ -084 C157 374723324 3300p \pm 5%,50V,Plastic Fuses C158 374721534 0.015 μ F \pm 5%,50V,Plastic F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 100μ F,6.3V,Elect. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 0.033 μ F \pm 5%,50V,Plastic F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F \pm 5%,50V,Plastic Socket						-	
C157 374723324 3300p \pm 5%,50V,Plastic Fuses C158 374721534 0.015 μ F \pm 5%,50V,Plastic F902 252076 Δ 3.15A-SE-EAK C159,C180 354721019 100 μ F,6.3V,Elect. F903 252075 Δ 2.5A-SE-EAK C174 374723334 0.033 μ F \pm 5%,50V,Plastic F902a,F903a 25050065 Δ YSH403T C176 374722234 0.022 μ F \pm 5%,50V,Plastic Socket				RL901	_	Λ	NRL-1P5A-DC-12-084
C158 374721534 $0.015 \mu F \pm 5\%,50V,Plastic$ F902 252076 \triangle 3.15A-SE-EAK C159,C180 354721019 $100 \mu F,6.3V,Elect.$ F903 252075 \triangle 2.5A-SE-EAK C174 374723334 $0.033 \mu F \pm 5\%,50V,Plastic$ Fuseholders C175 354780229 2.2 $\mu F,50V,Elect.$ F902a,F903a 25050065 \triangle YSH403T C176 37472234 $0.022 \mu F \pm 5\%,50V,Plastic$ Socket			•				
C159,C180 354721019 100μ F,6.3V,Elect. F903 252075 \triangle 2.5A-SE-EAK C174 374723334 0.033 μ F±5%,50V,Plastic Fuseholders C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F±5%,50V,Plastic Socket				F902		Λ	3.15A-SE-EAK
C174 374723334 0.033 μ F±5%,50V,Plastic Fuseholders C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F±5%,50V,Plastic Socket							
C175 354780229 2.2 μ F,50V,Elect. F902a,F903a 25050065 \triangle YSH403T C176 374722234 0.022 μ F±5%,50V,Plastic Socket						***	
C176 374722234 0.022 μ F±5%,50V,Plastic Socket				F902a,F903a		A	YSH403T
			•	_ , , , , , , , , , , , , , , , , , , ,		***	
TATE TO THE PARTY OF THE POST AND THE POST A			·	P902		A	NSCT-2P235.AC outlet

VIDEO CIRCUIT PC BOARD (NAETC-4901-3)						
CIRCUIT NO.	PART NO.	DESCRIPTION				
	IC					
Q253	222840661	4066B				
	Transistors					
Q251,Q252	2213284 or	2SC1740S-R or				
	2212115	2SC2458-GR				
	Diode					
D251	223222,	WG713A,				
	223205 or	1SS270A or				
	223163	1SS133				
	Capacitors					
C251,C252	354721019	100μ F,6.3V,Elect.				
C255,C256	354724719	470μ F,6.3V,Elect.				
C257	354721019	100μ F,6.3V,Elect.				
C259	354741019	100μ F,16V,Elect.				
	Terminal					
P251	25045339	NPJ-4PDYE190				
RI TERMINAL	PC BOARD(NAET					
CIRCUIT NO.	PART NO.	DESCRIPTION				
	Terminal					
P961	25045330	NPJ-2PDBL184				
		ARD(NASW-4905-3)				
CIRCUIT NO.	PART NO.	DESCRIPTION				
	Terminal					
P503	25045255	YKB21-5009				
	VITCH PC BOARD					
CIRCUIT NO.		DESCRIPTION				
	Socket					
S714	25035652	NPS-111-S604				

NOTE: THE COMPONENTS IDENTIFIED BY MARK A
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

PRINTED CIRCUIT BOARD-PARTS LIST

TX-SV9030

	1X-040000						
	JIT PC BOARD (NA	AR-4892-1A)					
CIRCUIT NO	. PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION		
	ICs			Transistors			
Q301	222502	NJM4558D-X	Q581,Q582	2211732 or	2SC1845-F or		
Q302	22240280	LC7821N		2211733	2SC1845-E		
Q303,Q403	22240025	LC4966	Q583	2211792 or	2SA992-F or		
Q401,Q402	22240247	BA15218N		2211793	2SA992-E		
Q481	22240239	TA7291S	Q591-Q593	2213640 or	DTC123JS or		
Q571	22240752	NJM4556L		2214660	RN1205		
Q921	222780125NEC	78M12HF	Q924	2211455	2SA1015-GR		
Q922	222790125	79M12HF		Diodes			
Q923	222780565JRC	78M56	D505,D506	223222,	WG713A,		
	Transistors		D571,D572	223205 or	1SS270A or		
Q304,Q404	2213510 or	DTA114ES or	D591,D592	223163	1SS133		
Q493	2214350	RN2202	D911	22380038	RBV602		
Q305,Q405	221282 or	DTC144ES or	D925	22380048	RBA402		
Q572	2213560	RN1204	D926-D928	22380035 or	GP104003E or		
Q491,Q492	2213631 or	RN1241-A or		22380046	AM01Z		
Q575,Q576	2213632	RN1241-B	D929	224453304	MTZ33D		
Q501-Q504	2211732 or *	2SC1845-F or	D930,D931	223222,	WG713A,		
Q507,Q508	2211733 *	2SC1845-E		223205 or	1SS270A or		
Q505,Q506	2213354 or	2SA933S-R or		223163	1SS133		
	2212125	2SA1048-GR		Coils			
Q509,Q510	2213284 or	2SC1740S-R or	L501,L502	231176S	S-1.3C		
Q515,Q516	2212115	2SC2458-GR		Capacitors			
Q511,Q512	2211353 or	2SA949-O or	C303,C304	354741009	10μ F,16V,Elect.		
	2211354	2SA949-Y	C307,C308	354721019	100μ F,6.3V,Elect.		
Q513,Q514	2211633 or	2SC2229-O or	C309,C310	374726224	6200pF±5%,50V,Plastic		
	2211634	2SC2229-Y	C311,C312	374721824	1800pF±5%,50V,Plastic		
Q517,Q518	2201944, *	2SD1763-D,	C313-C316	354741009	10μ F,16V,Elect.		
	2201945 or *	2SD1763-E or	C391,C392	374721015	100pF±10%,50V,Plastic		
	2201946 *	2SD1763-F	C401,C402	354741009	10μ F,16V,Elect.		
Q519,Q520	2201934, *	2SB1186-D,	C407-C412	354741009	10μ F,16V,Elect.		
	2201935 or *	2SB1186-E or	C413,C414	374721534	0.015μ F±5%,50V,Plastic		
	2201936 *	2SB1186-F	C417,C418	374721534	0.015μ F±5%,50V,Plastic		
Q521,Q522	2202523, *	2SC4468-O,	C421,C422	374724734	$0.047 \mu\text{F}\pm5\%,50\text{V,Plastic}$		
	2202524, *	2SC4468-Y,	C481	354721019	100μ F,6.3V,Elect.		
	2202526, *	2SC4468-P,	C491	354741009	10μ F,16V,Elect.		
	2202292 or *	2SC3182N-R or	C501,C502	354741009	10μ F,16V,Elect.		
	2202293 *	2SC3182N-O	C503,C504	374721015	100pF±10%,50V,Plastic		
Q523,Q524	2202513, *	2SA1695-O,	C507,C508	354742219	220μ F,16V,Elect.		
	2202514, *	2SA1695-Y,	C513,C514	354722219	220μ F,6.3V,Elect.		
	2202516, *	2SA1695-P,	C521,C522	354772209	22μ F,63V,Elect.		
	2202282 or *	2SA1265N-R or	C527,C528	374724734	$0.047 \mu \text{ F} \pm 5\%,50 \text{V}_{\bullet} \text{Plastic}$		
	2202283 *	2SA1265N-O	C567,C568	354700109	1μ F,160V,Elect.		
Q525,Q526	2211732 or	2SC1845-F or	C570	354771019	100μ F,63V,Elect.		
	2211733	2SC1845-E	C571-C573	354741009	10μ F,16V,Elect.		
Q573	2211163 or	2SC2120-O or	C581	354721019	100μ F,6.3V,Elect.		
	2211164	2SC2120-Y	C915,C916	3504263 or *	8200μ F,56V or		
Q575,Q576	2213631 or	RN1241-A or		3504268 *	8200μ F,56V,Elect.		
-	2213632	RN1241-B	C923	3504213	4700μ F,35V,Elect.		
			C924	354763329	3300μ F,35V,Elect.		

CAUTION:Replacement for transistor of mark *,if necessary,
must be made from the same beta group (H FE) as
the original type.

			DISPLAY CIRC	CUIT PC BOARD	(NADIS-4897-1A)
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors			IC	
C927,C928	354741009	10 μ F,16V,Elect.	Q701	22240773Y	μ PD78042GF-064
C931	354741009	10 μ F,16V,Elect.		FL tube	
C932	354761019	100 μ F,35V,Elect.	Q702	212127Y	FIP13LM8
C933	354781019	100 μ F,50V,Elect.		Remote control	sensor
C936,C937	354741009	10 μ F,16V,Elect.	U701	24130010Y	HC-312
,	Resistors			Transistors	
R393	5104225	N11RGLC250KWT22Z, Balance	Q703	221282 or	DTC144ES or
R409	5104230	N14RLC100KWT22Z,Bass		2213560	RN1204
R415	5104230	N14RLC100KWT22Z,Treble	Q704-Q706	2213284 or	2SC1740S-R or
R533,R534	443522704	27 ohm,1/2W,Metal oxide		2212115	2SC2458-GR
R535,R536	443521014	100 ohm,1/2W,Metal oxide	Q707	2213510 or	DTA114ES or
R537,R538	5210259	N06HR 2KBC,Trim		2214350	RN2202
R543,R544	443523314	330 ohm,1/2W,Metal oxide		Diodes	
R545,R546	4000132Y	0.22 ohm ×2,5W+5W, Metal plate	D701,D702	223205 or	1SS270A or
R551,R552	453630824	8.2 ohm,1 W,Metal	D704,D705	223163	1SS133
R553,R554	443523924	3.9 kohm, 1/2W, Metal oxide	D703	224450913	MTZ9.1C
R567,R568	453530224	2.2 ohm,1/2W,Metal	D706,D707	224450562	MTZ5.6B
R570	443522204	22 ohm,1/2W,Metal oxide	D708	223205 or	1SS270A or
R923	453530224	2.2 ohm,1/2W,Metal	D710-D712	223163	1SS133
R924	453530824	8.2 ohm,1/2W,Metal	D709	225291D	SEL4910D-D,LED
R927,R930	443522204	22 ohm,1/2W,Metal oxide		Resonator	
R933	443524704	47 ohm,1/2W,Metal oxide	X701	3010163	CST4.19MGW,Ceramic
R934	443524704	47 ohm,1/2W,Metal oxide		Coils	
	Relaies		L701-L703	233454K220	NCH-1452 220K
RL591,RL592	25065485	NRL-2P2A-DC24-086		Capacitors	
	Plugs		C701	3000075Y	0.047F,5.5V,Super
P211a,P613a	25055652	NPLG-14P608	C702	375524744	$0.47 \mu F \pm 5\%,50 \text{V,Plastic}$
P611a	25055678	NPLG-8P634	C703,C709	354721019	100μ F,6.3V,Elect.
P612a	25055649	NPLG-8P605	C704	354780109	1μ F,50V,Elect.
	Terminals		C706,C707	354780109	1μ F,50V,Elect.
P301-P303	25045300	NPJ-6PDBL-159	C711	354721019	100μ F,6.3V,Elect.
P501	25060158	NTM-8PDMN084		Switches	
P504	25045302	NPJ-1PDBL-161	S701-S713	25035652	NPS-111-S604
	Sockets		S715-S737	25035652	NPS-111-S604
P711a-P713a	25051046	NSCT-10P833		Plugs	
JL261a	25051087	NSCT-3P874	P711b-P713b	25055659	NPLG-10P615
JL811a,JL812a	25051111	NSCT-7P898		Holder	
JL912a,JL913a	25051109	NSCT-5P896		27190937Y	FL tube
				Retainer	
POWER SUPP	LY CIRCUIT PC B	OARD(NAETC-4893-1A)		27141575Y	RI terminal
CIRCUIT NO.	PART NO.	DESCRIPTION			
F921,F922	252076	! 6.3A-SE-EAK,Fuse			
F921a,F922a	25050065	! YSH403T,Fuseholders			
					•

PART NO. DESCRIPTION PART NO. DESCRIPTION PART NO. DESCRIPTION PART NO. DESCRIPTION PROVIDED PROVIDE	TUNER CIRCU	JIT PC BOARD (N	ARF-4898-1A)				
TU001 24008 FE415-G11 C213-C216 35474009 1 μp F,16V-Elect. Q103 22240799Y LA1851N Resistors 2.2 μ F,50V-Elect. Q171 22240799Y LA72140 R101 3510263 N064R 20KBC,Trim Q101 210746 25C945A-P Terminal Terminal Q102 2211723 25C1923-O P101 2506017 NTM-2PDML051 Q173 2212445 25K265-GR P111b 2550986 NSCT-14P773 Q201,Q202 2212115 25C2458-GR P211b 2550986 NSCT-14P773 Q203,Q204 2212319 D TA114ES or POWER SUPPL-Y CIRCUIT PC - DAC NAPS-4900-1A) PD TA14ES or Q203,Q204 221259 NTL25 RN202 CIRCUIT NO. PART NO. DESCRIPTION Q203,Q204 2212794 2510468-R Transistors TOTC144ES or Q203,Q204 2212795 MTL-4.5M,Crystal 2213550 RN1204 X201 232459017 XTL-4.5M,Crystal 2213550 RN1204	CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.		DESCRIPTION
TUDIO 24008 FEALS-GI1 C213-C216 354741009 1 μp. FJ. 6V. Elect. Q13 22240799Y LAT181N C217 354780229 2.2 μ. FS. 6V. Elect. Q171 72240790Y LAT181N Resistors NOGHR 20KBC, Trim Q101 2210746 25C945A.P Terminal Terminal Q102 2211723 2SC1923-O P101 29509117 NTM-2PDML051 Q173 2212324 S 25K256-GR P211b 2550986 NSCT-14P773 Q174,075 2212315 2SC2458-GR P211b 2550986 NSCT-14P773 Q201,Q202 2212151 2SC2458-GR Transistors D100-PVER SUPPL-Y CIRCUIT PC BOARD (NAPS-4900-1A) Q201,Q202 22145190 NT2.126 CRCUIT NO. PART NO. DSESCRPTION Q201,Q202 22145190 NT2.126 Transistors P218b 2215500 NSCT-14P773 Q201,Q202 2214590 NT2.51B 2215500 NSCT-14P773 NSCT-14P773 Q201,Q202 2121590 NT2.51B Trans		Front end			Capacitors		
C2 C2 C2 C3 C3 C4 C4 C5 C4 C5 C5 C5 C5	TU001	240089	FE415-G11	C213-C216			10 μ F,16V,Elect.
Q171 Z2240750Y							·
Q11 Q1240750Y	O103		LA1851N				
Q101 Z1013/46 2SC945.P R202 5210259 N06HR2KEBC.Trim Q102 2211745 2SC945.P P101 25060117 NTM-2PDML051 Q173 22112445 2SK365-GR P211b 25050986 NSCT-14P773 Q201,Q202 221115 2SC2488-GR P0WER SUPPLY CIRCUIT PC BATCD (NAPS-4900-1A) Q205 221450 RN2202 CIRCUIT NO. PART NO. DESCRIPTION Q203 2214510 RN2202 CIRCUIT NO. PART NO. DESCRIPTION Q301 2214520 RN2202 CIRCUIT NO. PART NO. DESCRIPTION D171 264450512 MT25.1B Q951 2212800 POTIC14ES or X171 30102287 XT1-4.5M,Crystal To Diode P0951 2212800 RN1226 X171 3010227Y CS8456F15,Ceramic P591-D954 2232600 RN1226 X171 3010228Y XT1-4.5M,Crystal P591-D954 2238005 or AND C4009 L104 233458Y NFF-4082 P59 2				R101			N06HR 20KBC.Trim
Q101 210746 2SC945A-P P Terminal Q102 2211723 2SC1923-O P10 25060117 NTM-2PDML051 Q173 22112445 2SK356-GR Socket Q173 2213248 or 2SC1749S-R or P211b 25050986 NSCT-14P773 Q201,Q202 2212151 DTA114ES or POWER SUPPLY CIRCUIT PC B-CAPPOOLA) POSCRIPTION Q203,Q204 2213510 RN2020 CIRCUIT No. PART NO. DESCRIPTION Q203,Q204 2213794 2SD1468-R Transistors Transistors D171 224450512 MTZ5.1B Q951 2213560 RN1204 Resonators TL-4.5M,Crystal D952 2213650 RN1226 X171 3010222Y XTL-4.5M,Crystal D951 2238005 or QP104003E or X101 301022YY XTL-4.5M,Crystal D951 2238005 or QP104003E or X101 301022YY XTE-4.0B P951 22380046 AND12 X101 233458Y NFIF-4082 <td>Q</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Q						
1010 211723 28C1923-O 1010 25060117 NTM-2PDML051	O101		25C945A-P				
Q172 2214454 28,365-GR Socket Q173 2213284 or 28C1749S-R or P11b 25050986 NSCT-14P773 Q201,Q202 2212115 2SC248S-GR POWER SUPT-VERCUIT PC BOARD (NAPS-4900-1A) Q205 2213510 or RN1202 CIRCUT NO PART NO DESCRIPTION Q203,Q204 2121794 2SD1468-R Transistors Transistors D106 VEX.15B 2213560 RN1204 Resonators Q952 2213560 or RN1204 X171 3010228Y XTL4.5M,Crystal Diodes Diodes X201 3010227Y CSB456F15,Ceramic Diodes PD51-D954 22380036 or GP104003E or X101 23345Y NFIF-4081 D955 223222, W0713A, L102 23345SY NFIF-4081 D85 223163 1SS133 L201L2 233345 NG-6070 P323163 1SS133 223163 1SS133 L201L2 233163 NMR-7065 C90 354742219 201 pc. F16V,Elect. <td>_</td> <td></td> <td></td> <td>P101</td> <td></td> <td></td> <td>NTM-2PDML051</td>	_			P101			NTM-2PDML051
Q13 2313284 or 251140-R or P211b 25050986 NSCT-14P773 Q201,Q202 2212115 2SC2458-GR POWER SUPFLY CIRCUIT PC BOARD (NAPS-4900-1A) Q205 2214350 RX2202 CIRCUIT NO. PART NO. DESCRIPTION Q203,Q204 2212794 2SD1468-R Q951 221282 or DTC144ES or D171 224450512 MTZ-1B Q952 2213560 RN1204 Resonators Q952 2213560 RN1204 X171 3010228Y XTL-4.5M,Crystal 2214680 RN1226 X201 3010228Y XTL-4.5M,Crystal 2234680 RN1226 X171 3010228Y XTL-4.5M,Crystal 2234680 RN1226 X201 334547Y NFIF-4081 9551-9094 22380046 AM01Z L102 233458W02 NGH-4152 022M 955 2232163 1SS133 L201,L202 233355A NMC-6070 SSS 223305 or 1SS70A or L151 232163 NMF-4062 C952							
Q201,Q202 Z21215 Z5C24S8-GR Q174,Q175 Z213510 or DTA114ES or DVBC SUPPLY CIRCUIT PC BOARD (NAPS-4900-1A) Q205 Z214350 RN2202 CIRCUIT NO PART NO. DESCRIPTION PART NO. DE				P211h			NSCT-14P773
Q174,Q175 Q213510 or D74114Es or POWER SUPLY CIRCUIT PC BOARD (NAPS-4900-1A)				12110	25050700		1.001 1.1775
Q205 2214350 RN2202 CIRCUIT NO. PART NO. DESCRIPTION Q203,Q204 2212794 25D1468-R Transistors Transistors D171 224450512 MTZ5.1B Q951 2212860 RN1204 Resonators Q951 2213660 RN1204 X171 3010228Y XTL-4.5M,Crystal 2214680 RR1226 X201 3010227Y CSB456F15,Ceramic Diodes Diodes L01 23345Y NFIF-4081 22380046 AM01Z L102 233458Y NFIF-4082 D955 232222, WG713A, L103 233458Y NFIF-4082 D95 232163 ISS133 L201,L202 233355A NMC-6070 223163 ISS133 ISS133 L151 232163 NMF-7065 C901 35064 DE7150F2103PAC400V/125V L152 232139 NMF-4062 C952 354742219 220 μ F, 16V Elect. L151 3010013 SFE10.7MA5 R951 453530824	-			POWER SUPP	LY CIRCUIT PO	' BO	ARD (NAPS-4900-1A)
Q203,Q204 2121794 2SD1468-R Transistors Diode Q951 221282 or DTC144ES or DTC144ES or RN1204 D171 224450512 MTZ5.1B 2213560 or DTD113ZS or RN1204 X171 3010228Y XTL-4.5M,Crystal 2213650 or DTD113ZS or DTD13ZS o	-						
D171 24450512 MTZ5.1B 2213560 MT2560 RN1264 X171 3010228Y XTL-4.5M,Crystal 2214680 RN126 X201 3010227Y CSB456F15,Ceramic Diodes PD51-D954 2380035 or PD10403B or PD10403B or PN1226 L101 233457Y NFIF-4081 22380046 AM01Z L102 233458Y NFIF-4082 D955 223222, WG713A, L103 233458M022 NGH-6070 223163 1SS133 L201,L202 233355A NMC-6070 Capacitors Capacitors L151 232163 NMF-7065 C901 550065A DE7150F2103PAC400V/125V L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. K101,X102 3010071 SFE10,7MA2A R951 453530804 * 8 2 ohm,1/2W,Metal X103 3010103 SFE10,7MA2A Power transfirer X101,X102 3010071 SFE10,7ME2A Power transfirer X101,X102 3010071 SFE10,7ME2A PS0.250065	-			checon no.			DESCRIE TOTAL
D171 224450512 MT25.1B Q952 2213660 RN1204 Resonators Q952 2213650 or DTD1132S or X201 301022RY XTL-4.5M,Crystal 2214660 RN1226 X201 301022TY CSB456F15,Ceramic Diodes FN1246 L101 23345YY NFIF-4081 D951-D954 22380046 AM01Z L102 23345SYY NFIF-4082 D955 223222 WG713A, L103 23345M022 NCH-1452 022M D95 223225 WG713A, L104 233383 NMC-6070 223205 or 185270A or L201,L202 233355A NMC-4059 C952 354742219 220 pt.169/Elect L151 232163 NMRF-7065 C901 3500065A Δ DE7150F2103PAC400V/125V L152 232139 NMIF-4062 P951 453530824 8.2 ohm,1/2W,Metal X101,X102 3010103 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X101,X102 3010103	Q203,Q204		23D1406-R	0951			DTC144FS or
National	D171		MT75 1P	Q>31			
X171 3010228Y XTL-4,5M,Crystal 2214680 RN1226 X201 3010227Y CSB456F15,Ceramic D951-D954 22380035 or GP104003E or L101 233457Y NFIF-4081 22380036 or GP104003E or L102 233458Y NFIF-4082 D955 223222, WG713A, L103 233454M022 NCH-1452 022M D955 223163 1SS133 L104 233383 NMC-6070 Capacitors Capacitors L151 232163 NMRF-7065 C901 350065A DE7150F2103PAC400V/125V L151 232193 NMF-4062 C952 354742219 20 μ p.16V.Elect. L152 232193 NMF-4062 C952 354742219 20 μ p.16V.Elect. L151 232163 NSF1-07MA5 R951 453330824 8.2 ohm.1/2W.Metal X103 3010130 SFE10.7MA5 R951 453330824 8.2 ohm.1/2W.Metal X103 3010123 SFE2.450IL T902 230671 NRT-1111F	D171		M123.1B	0052			
Note	V171		VTI 4 5M County	Q932			
Coils and transformers D951-D954 22380035 or P104003E or 1.101 23345YY NFIF-4081 22380046 AM01Z 1.102 233458Y NFIF-4082 D955 223222, WG713A, 1.103 233454M022 NCH-1452 022M 223163 1SS270A or 1.104 233383 NMC-6070 223163 1SS133 1.201,L202 2332163 NMRF-7065 C901 350065A Δ DE7150F2103PAC400V/125V 1.151 232163 NMRF-7065 C901 350065A Δ DE7150F2103PAC400V/125V 1.152 232139 NMRF-7065 C901 3504742219 220 μ F,16V,Elect. Ceramic filters Resistor Resistor Resistor X101,X102 301031 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010130 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X105 354741019 100 μ F,16V,Elect. RL901 25065483 Λ NRL-1P5A-DC-12-084			•				Reviews
L101 233457Y NFIF-4081 22380046 AM01Z L102 233458Y NFIF-4082 D955 223222, WG713A, L103 233454M022 NCH-1452 022M 223163 1SS270A or L104 233383 NMC-6070 223163 1SS2103 L201,L202 233355A NMC-4059 Capacitors L151 232163 NMRF-7065 C901 3500065A Δ DE7150FZ103PAC400V/125V L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. Ceramic filters Resistor Resistor Resistor X101,X102 3010130 SFE10.7MA2A Power transformer X151 3010123 SFZ-450IL T902 2300671 Λ NPT-1111P Capacitors Relay NPT-1111P Relay C010-C109 354780229 2.2 μ F,50V,Elect. F902 25076 Λ NRL-1P5A-DC-12-084 C133 354784709 10 μ F,16V,Elect. F902 25075 Λ	A201			D051_D054			GP104003F or
L102 233458Y NFIF-4082 D955 223222, WG713A, L103 233454M022 NCH-1452 022M 223205 or 1SS270A or L104 233383 NMC-6070 223163 1SS133 L201,L202 233355A NMC-4059 Capacitors L151 232163 NMRF-7065 C901 3500065A Δ DE7150FZ103PAC400V/125V L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. Ceramic filters SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010123 SFE10.7MZ2A Power transformer Fourthansformer X151 3010123 SF2.450JL T902 2300671 Δ NPT-1111P C001 354741019 100 μ F,16V,Elect. Fuses Fuses C110 354780229 2.2 μ F,50V,Elect. Fuses Fusesholders C151 35471009 10 μ F,16V,Elect. F002a,F903a 250076 Δ 3.15A-SE-EAK C155 35471009 <td>T 101</td> <td></td> <td></td> <td>D731-D734</td> <td></td> <td></td> <td></td>	T 101			D731-D734			
L103 23345M022 NCH-1452 022M 223205 or 1SS270A or L104 233383 NMC-6070 223163 1SS133 L201,L202 233355A NMC-4059 Capacitors L151 232163 NMF-7065 C901 350065A Δ DE7150FZ103PAC400V/125V L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. K101,X102 3010071 SFE10,7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010123 SFE10,7MZA Power transformer X151 3010123 SFE450IL T902 2300671 Λ NPT-1111P Capacitors Relay A PT-1111P PROTECTION (Place) PROTECTION (Place) A PT-1111P C107-C109 354780199 100 μ F,16V,Elect. F902 252076 Λ 3.15A-SE-EAK C133 3547841099 10 μ F,16V,Elect. F902 252075 Λ 2.5A-SE-EAK C155,C156 354741009 10 μ F,16V,Elect. P902 2500155				D055			
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L201,L202 233355A NMC-4059 Capacitors L151 232163 NMRF-7065 C901 3500065A Δ DE7150FZ103PAC400V/125V L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. Ceramic filters Resistor Resistor Resistor X101,X102 3010130 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010130 SFE10.7MA2A Power transformer X151 3010123 SFZ-450IL T902 2300671 Λ NPT-1111P C001 354741019 100 μ F,16V,Elect. RL901 25065483 Λ NRL-1P5A-DC-12-084 C110 354741019 100 μ F,16V,Elect. F902 252076 Λ 3.15A-SE-EAK C133 354784709 0.47 μ F,50V,Elect. F903 25075 Λ 2.5A-SE-EAK C155,C156 354741009 10 μ F,16V,Elect. F902a,F903a 25050065 Λ YSH403T C157 374723324 300pF±5%,50V,Plastic						,	
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L152 232139 NMIF-4062 C952 354742219 220 μ F,16V,Elect. X101,X102 3010071 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010130 SFE10.7MZ2A Power transformer X151 3010123 SFZ-450IL T902 2300671 Δ NPT-1111P C001 354741019 100 μ F,16V,Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C107-C109 354780229 2.2 μ F,50V,Elect. F902 252076 Δ 3.15A-SE-EAK C133 354784109 100 μ F,16V,Elect. F903 252075 Δ 2.5A-SE-EAK C151 354741009 10 μ F,16V,Elect. F902a,F903a 25050065 Δ YSH403T C157 374723324 3300pF±5%,50V,Plastic F902a,F903a 25051125 Δ NSCT-4P912,AC outlet C159,C180 35478109 10 μ F,6.3V,Elect. F902 25051125 Δ NSCT-4P912,AC outlet C176 374722334 0.03 μ F±5%,50V,Plastic <				C001	-	A	DE7150E7103B & C400V/125V
X101,X102 3010071 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010130 SFE10.7MZ2A Power transformer X151 3010123 SFZ-450IL T902 2300671 Λ NPT-1111P C001 354741019 100 μ F,16V,Elect. RL901 25065483 Λ NRL-1P5A-DC-12-084 C107-C109 354780229 2.2 μ F,50V,Elect. F902 252076 Λ 3.15A-SE-EAK C133 354784799 0.47 μ F,50V,Elect. F903 252075 Λ 2.5A-SE-EAK C151 354741009 10 μ F,16V,Elect. F902a,F903a 2500065 Λ YSH403T C157 374723324 3300pF±5%,50V,Plastic F902a,F903a 25050065 Λ YSH403T C158 374721034 0.01 μ F±5%,50V,Plastic P902 25051125 Λ NSCT-4P912,AC outlet C159,C180 354780229 2.2 μ F,50V,Elect. F902a,F903a 25051125 Λ NSCT-4P912,AC outlet C176 374722334 0.03 μ F±5%,50V,Plastic F902a,F903a F902a,F903a NSCT-4P912,AC outlet <t< td=""><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td></t<>						<u> </u>	
X101,X102 3010071 SFE10.7MA5 R951 453530824 8.2 ohm,1/2W,Metal X103 3010130 SFE10.7MZ2A Power transformer X151 3010123 SFZ-450JL T902 2300671 \triangle NPT-1111P Capacitors Relay Relay NRL-1P5A-DC-12-084 C001 354741019 100μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC-12-084 C110 354740199 100μ F,16V,Elect. F902 252076 \triangle 3.15A-SE-EAK C133 354784799 0.47μ F,50V,Elect. F903 252075 \triangle 2.5A-SE-EAK C151 354741009 10μ F,16V,Elect. F902a,F903a 2505065 \triangle YSH403T C157 374723324 3300pF±5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 100μ F,63V,Elect. P902 25051125 \triangle NSCT-4P912,AC outlet C176 374722334 0.032μ F±5%,50V,Plastic \triangle C177 354780229 0.22μ F,50V,Elect. C177 354780109 1	L152		NMIF-4062	C932			220 μ F, 16 V, Ειεςτ.
X103 3010130 SFE10.7MZ2A Power transformer X151 3010123 SFZ-450JL T902 2300671 $Λ$ NPT-1111P Capacitors Relay C001 354741019 100 $μ$ F,16V,Elect. RL901 25065483 $Λ$ NRL-1P5A-DC-12-084 C107-C109 354780229 2.2 $μ$ F,50V,Elect. F902 252076 $Λ$ 3.15A-SE-EAK C133 354784799 0.47 $μ$ F,50V,Elect. F903 252075 $Λ$ 2.5A-SE-EAK C151 354741009 10 $μ$ F,16V,Elect. F903 250065 $Λ$ YSH403T C157 374723324 3300pF±5%,50V,Plastic C158 37471034 0.01 $μ$ F±5%,50V,Plastic C159,C180 354721031 100 $μ$ F, 65.9,Plastic C174 374723334 0.033 $μ$ F±5%,50V,Plastic C175 354780229 2.2 $μ$ F,50V,Elect. C176 374722234 0.033 $μ$ F±5%,50V,Plastic C177 35478229 0.22 $μ$ F±5%,50V,Plastic C177 35478229 0.22 $μ$ F±5%,50V,Plastic C177 35478229 0.22 $μ$ F±5%,50V,Elect. C203 354780109 1 $μ$ F,50V,Elect. C203 354780109 100 $μ$ F,16V,Elect.	77101 77100		00010 00445	7051			8.2 about 1.0W Morel
X151 3010123 SFZ-450IL T902 2300671 \triangle NPT-1111P C001 354741019 100 μ F,16V,Elect. RL901 25065483 \triangle NRL-1P5A-DC-12-084 C107-C109 354780229 2.2 μ F,50V,Elect. Fuses C110 354741019 100 μ F,16V,Elect. F902 252076 \triangle 3.15A-SE-EAK C133 354784799 0.47 μ F,50V,Elect. F903 252075 \triangle 2.5A-SE-EAK C151 354741009 10 μ F,16V,Elect. F902a,F903a 25050065 \triangle YSH403T C157 374723324 3300pF±5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 100 μ F,63V,Elect. P902 25051125 \triangle NSCT-4P912,AC outlet C174 374723334 0.033 μ F±5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C175 354780229 2.2 μ F,50V,Elect. \triangle C175 354780229 0.22 μ F,50V,Elect. C176 374722334 0.022 μ F±5%,50V,Plastic \triangle C175 \triangle C175 \triangle C175 \triangle C175 </td <td></td> <td></td> <td></td> <td>K951</td> <td></td> <td></td> <td>8.2 onm,1/2 w, wetai</td>				K951			8.2 onm,1/2 w, wetai
Consider Relay C001 354741019 100μ F, $16V$, Elect. RL901 25065483 Δ NRL-1P5A-DC-12-084 C107-C109 354780229 2.2μ F, 50V, Elect. Fuses C110 354741019 100μ F, $16V$, Elect. F902 252076 Δ 3.15A-SE-EAK C133 354784799 0.47μ F, 50V, Elect. F903 252075 Δ 2.5A-SE-EAK C151 354741009 10μ F, $16V$, Elect. F902a, F903a 25050065 Δ YSH403T C157 374723324 3300pF±5%,50V, Plastic P902 25051125 Δ NSCT-4P912, AC outlet C159,C180 354721019 100μ F, $6.3V$, Elect. P902 25051125 Δ NSCT-4P912, AC outlet C174 374723334 0.033μ F±5%, 50V, Plastic P902 25051125 Δ NSCT-4P912, AC outlet C176 37472234 0.022μ F±5%, 50V, Plastic F F F F C177 354782299 0.22μ F±50V, Elect. F F F F F C203 354781019 1μ F				7000			NDT 111D
C001 354741019 100 $μ$ F, 16V, Elect. RL901 25065483 $Λ$ NRL-1P5A-DC-12-084 C107-C109 354780229 2.2 $μ$ F,50V, Elect. F902 252076 $Λ$ 3.15A-SE-EAK C133 354784799 0.47 $μ$ F,50V, Elect. F903 252075 $Λ$ 2.5A-SE-EAK C151 354741009 10 $μ$ F, 16V, Elect. F903 250075 $Λ$ 2.5A-SE-EAK C151 354741009 10 $μ$ F, 16V, Elect. F902a, F903a 250055 $Λ$ YSH403T C157 374723324 3300pF±5%, 50V, Plastic Socket C158 374721034 0.01 $μ$ F±5%, 50V, Plastic P902 25051125 $Λ$ NSCT-4P912, AC oullet C159, C180 354721019 100 $μ$ F, 6.3 V, Elect. P902 25051125 $Λ$ NSCT-4P912, AC oullet C175 354780229 2.2 $μ$ F, 50V, Elect. C176 37472234 0.022 $μ$ F±5%, 50V, Plastic C177 354782299 0.22 $μ$ F, 50V, Elect. C177 354782299 0.22 $μ$ F, 50V, Elect. C201, C202 354780109 1 $μ$ F, 50V, Elect. C203 35478019 100 $μ$ F, 50V, Elect. C204 354741019 100 $μ$ F, 16V, Elect.	X151		SFZ-450JL	1902		47	NP1-IIIIP
C107-C109 354780229 2.2 μ F,50V,Elect. F902 252076 \mathbb{A} 3.15A-SE-EAK C133 354784799 0.47 μ F,50V,Elect. F903 252075 \mathbb{A} 2.5A-SE-EAK C151 354741009 10 μ F,16V,Elect. F903 250065 \mathbb{A} 2.5A-SE-EAK C155,C156 354741009 10 μ F,16V,Elect. F902a,F903a 25050065 \mathbb{A} YSH403T C157 374723324 3300pF±5%,50V,Plastic Socket C158 374721034 0.01 μ F±5%,50V,Plastic P902 25051125 \mathbb{A} NSCT-4P912,AC outlet C159,C180 354721019 100 μ F,6.3V,Elect. C174 374723334 0.033 μ F±5%,50V,Plastic C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F±5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354780109 1 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.	G001	-	100 71017	DI 001	-	A	NRI 1054 DC 10 084
C110 354741019 $100 \mu F, 16V, Elect.$ F902 252076 \triangle 3.15A-SE-EAK C133 354784799 $0.47 \mu F, 50V, Elect.$ F903 252075 \triangle 2.5A-SE-EAK C151 354741009 $10 \mu F, 16V, Elect.$ Fuseholders C155,C156 354741009 $10 \mu F, 16V, Elect.$ F902a,F903a 25050065 \triangle YSH403T Socket C157 374723324 3300pF $\pm 5\%$,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 $100 \mu F, 6.3V, Elect.$ C174 374723334 $0.033 \mu F \pm 5\%$,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C175 354780229 $2.2 \mu F, 50V, Elect.$ C176 374722234 $0.022 \mu F, 50V, Elect.$ C177 354782299 $0.22 \mu F, 50V, Elect.$ C201,C202 354780109 $1 \mu F, 50V, Elect.$ C203 354783399 $0.33 \mu F, 50V, Elect.$ C204 354741019 $100 \mu F, 16V, Elect.$				RL901		<i>Δ</i>	NRL-1P3A-DC-12-084
C133 354784799 0.47 μ F,50V,Elect. F903 252075 \triangle 2.5A-SE-EAK C151 354741009 10μ F,16V,Elect. F902a,F903a 25050065 \triangle YSH403T C157 374723324 3300pF \pm 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 100μ F,6.3V,Elect. P902 25051125 \triangle NSCT-4P912,AC outlet C174 374723334 0.033 μ F \pm 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F \pm 5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100μ F,16V,Elect.				T000		٨	2154 CE EAV
C151 354741009 $10 \mu F,16V$, Elect. Fuseholders 25050065 354741009 $10 \mu F,16V$, Elect. F902a, F903a 25050065 35474109 $10 \mu F,16V$, Elect. F902a, F903a 25050065 $35474103T$ 374723324 $3300pF \pm 5\%,50V$, Plastic P902 25051125 35478239 354721019 $100 \mu F,6.3V$, Elect. 374723334 $0.033 \mu F \pm 5\%,50V$, Plastic P902 25051125 354780229 $2.2 \mu F,50V$, Elect. 25051125 250511							
C155,C156 354741009 $10 \mu \text{ F}$,16V,Elect. F902a,F903a 25050065 \triangle YSH403T C157 374723324 3300pF \pm 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 $100 \mu \text{ F}$,6.3V,Elect. C174 374723334 $0.033 \mu \text{ F} \pm$ 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C175 354780229 $2.2 \mu \text{ F}$,50V,Elect. C176 37472234 $0.022 \mu \text{ F} \pm$ 5%,50V,Plastic C177 354782299 $0.22 \mu \text{ F}$,50V,Elect. C201,C202 354780109 $1 \mu \text{ F}$,50V,Elect. C203 354783399 $0.33 \mu \text{ F}$,50V,Elect. C204 354741019 $100 \mu \text{ F}$,16V,Elect.				F903		<u> </u>	2.5A-SE-EAK
C157 374723324 3300pF \pm 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C158 374721034 0.01 μ F \pm 5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 100 μ F,6.3V,Elect. C174 374723334 0.033 μ F \pm 5%,50V,Plastic C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F \pm 5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.			10μ F,16V,Elect.	P000 - P000 -			VOITAGOT
C158 374721034 0.01 μ F±5%,50V,Plastic P902 25051125 \triangle NSCT-4P912,AC outlet C159,C180 354721019 100 μ F,6.3V,Elect. C174 374723334 0.033 μ F±5%,50V,Plastic C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F±5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.				F902a,F903a		₹7	YSH4031
C159,C180 354721019 $100 \mu \text{ F,6.3V,Elect.}$ C174 374723334 $0.033 \mu \text{ F} \pm 5\%$,50V,Plastic C175 354780229 $2.2 \mu \text{ F,50V,Elect.}$ C176 374722234 $0.022 \mu \text{ F} \pm 5\%$,50V,Plastic C177 354782299 $0.22 \mu \text{ F,50V,Elect.}$ C201,C202 354780109 $1 \mu \text{ F,50V,Elect.}$ C203 354783399 $0.33 \mu \text{ F,50V,Elect.}$ C204 354741019 $100 \mu \text{ F,16V,Elect.}$				7000		٨	NOCT 40010 4 C
C174 374723334 0.033 μ F±5%,50V,Plastic C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F±5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.				P902	25051125	△	NSC1-4P912,AC outlet
C175 354780229 2.2 μ F,50V,Elect. C176 374722234 0.022 μ F±5%,50V,Plastic C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.			•				
C176 374722234 $0.022 \mu F \pm 5\%,50V,Plastic$ C177 354782299 $0.22 \mu F,50V,Elect.$ C201,C202 354780109 $1 \mu F,50V,Elect.$ C203 354783399 $0.33 \mu F,50V,Elect.$ C204 354741019 $100 \mu F,16V,Elect.$			•				4
C177 354782299 0.22 μ F,50V,Elect. C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.			2.2 μ F,50V,Elect.				
C201,C202 354780109 1 μ F,50V,Elect. C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.			•				
C203 354783399 0.33 μ F,50V,Elect. C204 354741019 100 μ F,16V,Elect.			0.22μ F,50V,Elect.				
C204 354741019 100μ F,16V,Elect.			•				
C205,C206 374721034 $0.01 \mu \text{ F} \pm 5\%$,50V,Plastic			•				
	C205,C206	374721034	$0.01 \mu\text{F} \pm 5\%,50\text{V,Plastic}$				

NOTE: THE COMPONENTS IDENTIFIED BY MARK A
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

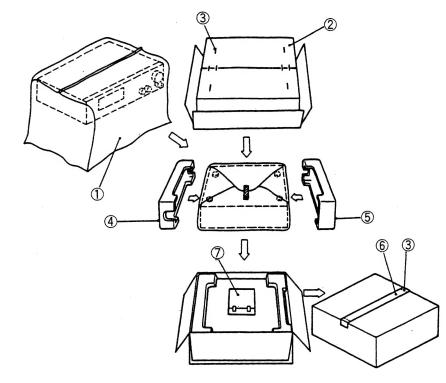
VIDEO CIRCU	IT PC BOARD (N	IAETC-4901-1)			
CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRPTION
	IC			Diodes	
Q253	222840661	4066B	D651	224450562	MTZ5.6B
•	Transistors		D652,D653	223222,	WG713A,
Q251,Q252	2213284 or	2SC1740S-R or		223205 or	1SS270A or
	2212115	2SC2458-GR		223163	1SS133
	Diode			Resonator	•
D251	223222,	WG713A,	X651	3010217	CST2.04MG040,Ceramic
	223205 or	1SS270A or		Capacitors	
	223163	1SS133	C601,C602	354780229	2.2 μ F,50V,Elect
	Capacitors		C605,C606	354741009	10 μ F,16V,Elect.
C251,C252	354721019	100 μ F,6.3V,Elect.	C607-C610	354781099	0.1 μ F,50V,Elect.
C255,C256	354724719	470 μ F,6.3V,Elect.	C613,C614	374724734	$0.047 \mu \text{ F} \pm 5\%,50 \text{V,Plastic}$
C257	354721019	100 μ F,6.3V,Elect.	C615,C616	374722234	$0.022 \mu \text{ F} \pm 5\%,50 \text{ V}, \text{Plastic}$
C259	354741019	100 μ F,16V,Elect.	C617-C620	354781099	0.1 μ F,50V,Elect.
C237	Terminal	100 μ 1,10 γ ,Εισεί.	C621,C622	354780479	4.7 μ F,50V,Elect.
P251	25045339	NPJ-4PDYE190	C623-C627	354782299	0.22 μ F,50V,Elect.
F251	23043339	NFJ-4FD 1E190			· ·
DI TEDMINIAT	PC BOARD(NAI	ETC 4004 1)	C628	354741009	10 μ F,16V,Elect.
CIRCUIT NO.	•	DESCRPTION	C629	354786899	0.68 μ F,50V,Elect.
CIRCUII NO.		DESCRITION	C630	374724734	$0.047 \mu\text{F} \pm 5\%,50\text{V,Plastic}$
70/1	Terminal	VDI ODDDI 104	C631,C660	374725625	5600pF±5%,50V,Plastic
P961	25045330	NPJ-2PDBL184	C632	354780229	2.2 μ F,50V,Elect.
			C634	354722219	220 μ F,6.3V,Elect.
		OARD(NASW-4905-1)	C635	354741019	100 μ F,16V,Elect.
CIRCUIT NO.	PART NO.	DESCRPTION	C636-C641	354741009	10μ F,16V,Elect.
	Terminal		C642	374724724	4700pF±5%,50V,Plastic
P503	25045255	YKB21-5009	C643	354741009	10 μ F,16V,Elect.
			C644	392841007	10μ F,16V,Elect.
		D(NASW-4906-1)	C651	354782299	0.22μ F,50V,Elect.
CIRCUIT NO.		DESCRPTION	C653	374723924	3900pF±5%,50V,Plastic
	Switch		C655	374726834	$0.068 \mu\text{F} \pm 5\%,50\text{V,Plastic}$
S714	25035652	NPS-111-S604	C656	354744709	47μ F,16V,Elect.
			C657,C658	354781099	0.1 μ F,50V,Elect.
SURROUND C	IRCUIT PC BOAI	RD (NAAF-4908-1)	C659	374726834	$0.068 \mu\text{F} \pm 5\%$,50V,Plastic
CIRCUIT NO.	PART NO.	DESCRPTION	C661	374724724	4700pF±5%,50V,Plastic
	ICs	:	C663,C665	354721019	100μ F,6.3V,Elect.
Q601	22240247 or	BA15218N or	C666	375524744	$0.47 \mu\text{F}\pm5\%$,50V,Plastic
Q673,Q674	22240293	NJM4558L-D	CIRCUIT NO.	PART NO.	DESCRIPTION
Q602	22240683 or	NJM2177L or		Capacitors	
	22240692	M69032P	C671,C672	354780229	2.2 μ F,50V,Elect.
Q606	22240398 or	TC9162N or	C675,C676	354741009	10μ F,16V,Elect.
	22240751	NJU7311L	C677,C678	354780229	2.2 μ F,50V,Elect.
Q651	22240686 or	M65830P or	C679-C682	354741009	10 μ F,16V,Elect.
	22240687	NJU9701D	C684,C685	354741009	10 μ F,16V,Elect.
Q671	22240266	TC9213P	Approximately and the second of	Resistor	•
	Transistors		R431	5104332Y	N16RQL100KBT25F,Main volume
Q603,Q604	2213631 or	RN1241-A or		Plug ·	, and a second
Q675,Q676	2213632	RN1241-B	P622a	25055405	NPLG-3P387
-				Sockets	
			P611b	25051127	NSCT-8P914
			P612b	25050983	NSCT-8P770
			. 0.20		

PACKING VIEW

CIRCUIT NO.	PART NO.		DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Sockets				Diodes	
P613b	25050986		NSCT-14P773	D805,D806	223222,	WG713A,
P621a	2000802ULY		NSAS-6P758	D811	223205 or	1SS270A or
					223163	1SS133
CENTER AND	REAR AMPLIF	IER	PC BOARD (NAAF-4909-1A)		Coils	
CIRCUIT NO.	PART NO.		DESCRIPTION	L801,L802	231176S	S-1.3C
	Transistors				Capacitors	
Q801-Q804	2211732 or	*	2SC1845-F or	C801,C802	354741009	10 μ F,16V,Elect.
Q807,Q808	2211733	*	2SC1845-E	C807	354742219	220μ F,16V,Elect.
Q805,Q806	2213354 or		2SA933S-R or	C808	354744709	47μ F,16V,Elect.
	2212125		2SA1048-GR	C821,C822	374724734	0.047μ F \pm 5%,50V,Plastic
Q809,Q810	2213284 or		2SC1740S-R or	C827,C828	374724734	0.047μ F \pm 5%,50V,Plastic
Q815,Q816	2212115		2SC2458-GR	C865,C867	354700109	1 μ F,160V,Elect.
Q811,Q812	2211353 or		2SA949-O or	C866	354784709	47μ F,50V,Elect.
C /C	2211354		2SA949-Y	C868,C870	374724734	$0.047 \mu\text{F} \pm 5\%,50\text{V,Plastic}$
Q813	2211633 or		2SC2229-O or	C869	354700109	1 μ F,160V,Elect.
Q010	2211634		2SC2229-Y		Resistors	
Q814	2211732 or		2SC1845-F or	R833,R834	443522704	27 ohm,1/2W,Metal oxide
Q825,Q826	2211733		2SC1845-E	R835,R836	442521014	100 ohm,1/2W,Metal oxide
Q817	2212653 or		2SC3421-O or	R837	5215044	N08HR 2KBC,Trim
Qu'i	2212654		2SC3421-Y	R843,R844	443523314	330 ohm,1/2W,Metal oxide
Q818	2211653 or		2SC2235-O or	R845	4000132Y	0.22 ohm×2,5W+5W,Metal plate
2010	2211654		2SC2235-Y	R846	4000131Y	0.22 ohm×2,2W+2W,Metal plate
Q819	2212643 or		2SA1538-O or	R851,R852	453530824	8.2 ohm,1/2W,Metal
Q017	2212644		2SA1538-Y	R853,R854	443523924	3.9 kohm,1/2W,Metal oxide
Q820	2211643 or		2SA965-O or	R865,R866	453530224	2.2 ohm,1/2W,Metal
Q020	2211644		2SA965-Y	R867-R870	443522204	22 ohm,1/2W,Metal oxide
Q821	2202253,	*	2SC4467-O,		Relay	
Q021	2202254,	*	2SC4467-Y,	RL801	25065485	NRL-2P2A-DC24-086
	2202256,	*	2SC4467-P,		Plugs	
	2202502 or	*	2SC3181N-R or	P621b	25055234	NPLG-3P218
	2202503	*	2SC3181N-O		Terminal	
Q822	2202373,	*	2SC4466-O,	P801	25060191Y	NTM-6PDML113
QULL	2202374,	*	2SC4466-Y,			
	2202375,	*	2SC4466-P,			
	2202373, 2202352 or	*	2SC3180N-R or			
	2202353	*	2SC3180N-O			
0922	2202243,	*				
Q823	2202244,	*	2SA1694-Y,			
	2202244,	*	2SA1694-P,			
	2202240, 2202492 or	*	2SA1264N-R or			
	2202492 01	*	2SA1264N-O			
0004		*	2SA1693-O,			4
Q824	2202363,	*				
	2202364,		2SA1693-Y,			
	2202365,	*	2SA1693-P, 2SA1263N-R or			
	2202342 or	_				
	2202343	-	2SA1263N-O			

CAUTION:Replacement for transistor of mark *,if necessary, must be made from the same beta group (H =) as the original type.

NOTE: THE COMPONENTS IDENTIFIED BY MARK A
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.



TX-9022RDS PA

.,, 00220						
PARTS LIST						
REF.NO.	PART NO.	DESCRIPTION				
1	29100034-1Y	Styrene bag for unit				
2	29052706Y	Carton box				
3	282301	Ten staples				
4	29091652BY	Pad R				
5	29091651BY	Pad L				
6	29110071	PP tape				
7	Accessary bag ass'y					
	232140	NMA-3057,AM loop antenna				
	2010200	Cord RI				
	3010054	UM-3,Two batteries				
	24140261AY	RC-261S,Remote control transmitter				
	29100097-1Y	Styrene bag for accessary				
	292112Y	FM antenna				
	29341902Y	Instruction manual				
	29365020H	Warranty card				
	29100094B	Styrene bag for warranty card				
	29100097-1Y	Styrene bag for accessary				

DESCRIPTION

Styrene bag for unit

Carton box

Ten staples

Pad R

Pad L

PP tape

NMA-3057,AM loop antenna

Cord RI

UM-3,Two batteries

RC-262S, Remote control transmitter

Styrene bag for accessary

. FM antenna

Instruction manual

Warranty card

Styrene bag for warranty card